

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Measurement Procedures for the Enforcement of 35 Ill. Adm. Code 900 & 901
- 2) Code Citation: 35 Ill. Adm. Code 910
- 3)

<u>Section Numbers</u> :	<u>Proposed Actions</u> :
910.100	Amendment
910.102	Amendment
910.104	Amendment
910.105	Amendment
910.106	Amendment
910.107	Amendment
- 4) Statutory Authority: Implementing and authorized by Sections 27 and 28 of the Illinois Environmental Protection Act [415 ILCS 5/27 and 28].
- 5) A Complete Description of the Subjects and Issues Involved: The proposed changes involve updating definitions, references, and sound measurement procedures.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Will this rulemaking replace any emergency rule currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this proposed rulemaking contain incorporations by reference? Yes
- 10) Are there any other rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objective: The amendments streamline, update, and overhaul rules that are no longer current due to changing technology and the passage of time.
- 12) Time, Place, and Manner in which interested persons may comment on this rulemaking: The Board will accept written public comments on this proposal for a period of at least 45 days after the date of publication in the *Illinois Register*. Public comments must be filed with the Clerk of the Board. Public comments should reference Docket R18-19 and be addressed to:

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CLERK'S OFFICE
APR - 4-2018
STATE OF ILLINOIS
Pollution Control Board

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Clerk's Office
Illinois Pollution Control Board
JRTC
100 W. Randolph St., Suite 11-500
Chicago IL 60601

Public comments may also be filed electronically through the Clerk's Office On-Line (COOL) on the Board's website at www.ipcb.state.il.us.

Interested persons may request copies of the Board's opinion and order in R18-19 by calling the Clerk's office at 312-814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

- 13) Initial Regulatory Flexibility Analysis:
- A) Types of small businesses, small municipalities and not-for-profit corporations affected: None, amendments are not substantive.
 - B) Reporting, bookkeeping or other procedures required for compliance: None
 - C) Types of Professional skills necessary for compliance: None
- 14) Regulatory Agenda on which this rulemaking was summarized: July 2017

The full text of the Proposed Amendments begins on the next page:

1
2 TITLE 35: ENVIRONMENTAL PROTECTION
3 SUBTITLE H: NOISE
4 CHAPTER I: ILLINOIS POLLUTION CONTROL BOARD

5
6 PART 910
7 MEASUREMENT PROCEDURES FOR THE ENFORCEMENT
8 OF 35 ILL. ADM. CODE 900 & 901
9

10 Section
11 910.100 General
12 910.102 Instrumentation
13 910.103 Definitions
14 910.104 Measurement Techniques for 35 Ill. Adm. Code 900
15 910.105 Measurement Techniques for 35 Ill. Adm. Code 901
16 910.106 Protocols for Determination of Sound Levels
17 910.107 Measurement Techniques for Highly-Impulsive Sound Under 35 Ill. Adm. Code
18 104

19
20 910.APPENDIX A Tables of Long-Term Background Ambient Noise
21 910.TABLE A Daytime long-term background ambient L_{eq} levels in decibels by land use
22 categories and $\frac{1}{3}$ octave-band level
23 910.TABLE B Nighttime long-term background ambient L_{eq} levels in decibels by land
24 use categories and $\frac{1}{3}$ octave-band level
25 910.TABLE C Daytime long-term background ambient L_{eq} levels in decibels by land use
26 categories and octave-band level
27 910.TABLE D Nighttime long-term background ambient L_{eq} levels in decibels by land
28 use categories and octave-band level
29

30 AUTHORITY: Implementing and authorized by Sections 25 and 27 of the Environmental
31 Protection Act [415 ILCS 5/25 and 27].
32

33 SOURCE: Adopted in R03-9 at 30 Ill. Reg. 5594, effective March 10, 2006; amended in R18-19
34 at 42 Ill. Reg. _____, effective _____.
35

36 **Section 910.100 General**
37

38 This Part provides specifications for sound measurement equipments, specifies the instrumentation
39 to be used when conducting acoustical noise measurements as well as and sets forth the specific
40 sound acoustical measurement techniques to be used employed when conducting time-averaged
41 sound level (L_{eq}) measurements for. The instrumentation requirements and measurement
42 techniques as more specifically set forth in this Part must be used in determining whether a noise
43 source is compliant in compliance with 35 Ill. Adm. Code 900 and 901.

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(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 910.102 Instrumentation

a) Sound Measuring Equipment

1) ~~Use an~~An integrating sound level meter used-alone or used-in conjunction with an octave-band or 1/3 octave-band filter set or a real-time sound analyzer (octave-band or 1/3 octave-band) ~~that complies~~must conform with the following standards incorporated by reference at 35 Ill. Adm. Code 900.106:

A) ~~ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013~~1983 (R2001) "American National Standard Electroacoustics – Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)Specification for Sound Level Meters", and ANSI S1.4 A – 1985 "Amendment to ANSI S1.4 – 1983."

B) ~~ANSI/ASA S1.11-2014/Part1/IEC 61260:1-2014~~1986 (R1998) "American National Standard Electroacoustics – Specifications for Octave-Band and Fractional-Octave-Band Analog and Digital Filters – Part 1: Specifications (a nationally adopted international standard)."

C) ~~ANSI/ASA S1.6-2016~~1984 (R2001) "American National Standard Preferred Frequencies and Filter Band Center Frequencies, Frequency Levels, and Band Numbers for Acoustical Measurements."

D) ~~ANSI/ASA S1.8-2016~~1989 "American National Standard Reference Values for Levels Used in Acoustics and VibrationsQuantities for Acoustical Levels."

E) ~~International Electrotechnical Commission, IEC 61672-1:2013~~804-2000 Integrating/Averaging Sound Level Meters – Part 1: Specifications."

2) ~~Use a~~A magnetic tape recorder, graphic level recorder or other indicating device ~~conforming with~~used must meet the requirements of the Society of Automotive Engineers (SAE) Recommended Practice J184 "Qualifying a Sound Data Acquisition System," ~~August 2014~~November 1998, incorporated by reference at 35 Ill. Adm. Code 900.106.

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3) Calibrate sound measuring equipment ~~The laboratory calibration of instrumentation used for acoustic measurement must be traceable to the National Bureau of Standards, and must be performed no less often than at least once every 12 months.~~

4) For outdoor measurement, use a microphone with an attached ~~a~~ windscreen must be attached to the microphone.

b) Weather Measuring Equipment

1) Use an ~~An~~ anemometer and compass or other devices must be used to measure wind speed and direction in compliance ~~accordance~~ with the manufacturer's recommended procedures.

2) Use a ~~A~~ thermometer, designed to measure ambient temperature, must be used in compliance ~~accordance~~ with the manufacturer's recommended procedures.

3) Use a ~~A~~ hygrometer must be used in compliance ~~accordance~~ with the manufacturer's recommended procedures to measure the relative humidity.

4) Use a ~~A~~ barometer must be used in compliance ~~accordance~~ with the manufacturer's recommended procedures to measure the barometric pressure.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 910.104 Measurement Techniques for 35 Ill. Adm. Code 900

~~Sound pressure level measurements are not required to establish a violation of 35 Ill. Adm. Code 900.102 (nuisance noise) can be established without sound pressure level measurement. However, sound pressure level measurements may be introduced as corroborating evidence when alleging a violation of 35 Ill. Adm. Code 900.102 if. If sound pressure level measurements are collected, in compliance with the manufacturer's instructions must be followed for the sound measuring equipment, used and The sound measuring techniques in 35 Ill. Adm. Code 910.105 may be used as guidance in gathering data.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 910.105 Measurement Techniques for 35 Ill. Adm. Code 901

129 ~~To determine a noise source's compliance with 35 Ill. Adm. Code 901, sound~~ Sound pressure
 130 ~~level measurements are~~ must be obtained using in accordance with the following measurement
 131 ~~techniques to determine whether a noise source is in compliance with 35 Ill. Adm. Code 901:~~
 132

133 a) Site Selection

134
 135 1) ~~One~~ Measurements may be taken at one or more outdoor microphone
 136 ~~positions within the appropriate receiving land. Measurement instruments~~
 137 ~~must be set up outdoors~~ may be chosen within the boundaries of the
 138 ~~receiving land, as long as the positions are at least for the purpose of~~
 139 ~~determining whether a noise source is in compliance with 35 Ill. Adm.~~
 140 ~~Code 901.~~ 2) Measurement instruments must be set up not less than 25
 141 feet (7.6 meters (m)) from the property-line-noise-source. The 25-foot
 142 (7.6 m) setback ~~distance~~ requirement is from the noise source and not the
 143 property line unless the noise source is contiguous to the property line.
 144

145 ~~23)~~ Other measurement locations may be used for investigatory purposes,
 146 ~~including such as, but not limited to,~~ the following:
 147

- 148 A) Determining the extent of noise pollution caused by the source of
 149 sound;
- 150
 151 B) Determining the ambient; and
- 152
 153 C) Analyzing those acoustical parameters that describe the sound
 154 source.
 155

156 ~~34)~~ For measurements of sound sources with no audible discrete tones, set up
 157 ~~the microphones should not be set up less than at least~~ 25 feet (7.6 m)
 158 from any reflective surface that may affect data. If microphones
 159 ~~are~~ measurements must be taken within 25 feet (7.6 m), determine the
 160 effect, if any, of the reflective surface on the measured data ~~must be~~
 161 determined.
 162

163 ~~45)~~ For measurements of sound sources with audible discrete tones, set up the
 164 ~~microphones at least~~ must not be set up less than 50 feet (15.2 m) from any
 165 reflective surface that may affect data. If microphones are measurements
 166 ~~must be taken~~ within 50 feet (15.2 m), determine the effect, if any, of the
 167 reflective surface on the measured data ~~must be determined~~.
 168

169 ~~56)~~ Microphones need to be at least 5 feet (1.5 m) from ~~Objects with small~~
 170 ~~objects~~ dimensions (trees, posts, bushes, etc.) ~~must not be within 5 feet (1.5~~
 171 ~~m) of the microphone position. If microphones are measurements must be~~

172 ~~taken~~ within 5 feet (1.5 m) of ~~small~~ such objects, determine the effect, if
173 any, on the measured data ~~must be determined~~.

174
175 b) Instrumentation Set Up

- 176
177 1) ~~Set up a microphone. A tripod must be set at the chosen site. The tripod~~
178 ~~must be extended to a height between 3 feet 8 inches (1.12 m) and 4 feet~~
179 ~~10 inches (1.47 m) above ground.~~
180
181 2) ~~Attach the~~ A microphone at the top of the tripod and connect it to the
182 measuring instrument with ~~must be attached to the appropriate end of a 5-~~
183 ~~foot (1.5 m) or longer cable and must be affixed to the top of the tripod.~~
184 ~~The other end of the cable must be connected to the measuring instrument.~~
185
186 3) Adjust the The angle of incidence of the microphone ~~must be adjusted to~~
187 ~~yield the flattest frequency response~~ compliant ~~in accordance with the~~
188 ~~manufacturer's specifications.~~
189
190 4) Separate the The measuring instrument ~~must be separated from the~~
191 ~~microphone so as to minimize any influence on the measurements, and~~
192 minimize any. ~~The cable movement must be minimized during the~~
193 ~~measurement period.~~

194
195 c) Measurement Site Operation and Instrument Calibration

- 196
197 1) Before taking sound pressure level measurements, measure and record
198 (near the measurement site):
199
200 A) Wind speed and direction;
201
202 B) Ambient temperature;
203
204 C) Relative humidity; and
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206 D) Barometric pressure.
207
208 2) Turn the measuring instrument on and allow the instrument to stabilize.
209 Monitor and record the battery condition of the calibrator and all
210 measuring instruments.
211
212 3) Turn the calibrator on at its appropriate frequency. Allow the calibrator to
213 stabilize and calibrate the measuring system according to the
214 manufacturer's specifications. After the measuring system has been

- 215 calibrated, remove the calibrator and attach a windscreen to the
216 microphone.
217
- 218 4) Adjust the microphone to the angle of incidence that will yield the
219 frequency response compliant in accordance with the manufacturer's
220 specifications.
221
- 222 5) Measure the sound pressure level data within the limitations of subsection
223 (d) and according to the manufacturer's recommended procedures. Other
224 sound pressure levels may be used for investigatory purposes, including
225 ~~such as, but not limited to,~~ the following:
226
- 227 A) Determining the extent of noise pollution caused by the source of
228 sound;
229
- 230 B) Determining the ambient; and
231
- 232 C) Analyzing those acoustical parameters that describe the sound
233 source.
234
- 235 6) While sound measurements are being taken, maintain distance between the
236 ~~operator must be separated from~~ and the microphone so as to minimize
237 any influence on the measurements.
238
- 239 7) While measurements are being taken, make visual and aural surveillance
240 of extraneous sound sources and varying wind conditions ~~must be made to~~
241 ~~ensure~~ ensure that the conditions of measurement are accurately known.
242 Record any variations in these parameters that may affect data. Record
243 ~~the~~ The number and basis for the affected data block ~~must be recorded~~.
244 When using a tape recorder, record voice commentary concerning
245 conditions ~~will be recorded~~ on the cue track.
246
- 247 8) Minimize ~~To minimize~~ wind effects on the microphone by taking, sound
248 measurements ~~must not be taken~~ when the wind velocity is ~~less~~ greater
249 than 12 miles per hour (5.4 m/second) at the microphone position.
250
- 251 9) For the purposes of data correction, determine the ambient sound at the
252 measurement site ~~must be determined~~ by means of measurement or
253 analysis.
254
- 255 10) After taking sound pressure level measurements, remove the windscreen
256 and attach the calibrator to the microphone. Turn the calibrator on at its
257 appropriate frequency. After allowing the calibrator to stabilize, monitor

- 258 and record the measuring system response. ~~If~~When the measuring system
259 response varies by more than ± 0.5 dB from the most recent field
260 calibration, the sound pressure level measurements obtained since such
261 most recent field calibration cannot be used for enforcement purposes.
262
- 263 11) Before removing the calibrator from the microphone, turn the calibrator
264 off. If the ambient sound has not been determined by means of
265 measurement, determine the noise floor of the measuring system. If the
266 noise floor is within 10 dB of the measured sound pressure level data,
267 record these~~such~~ noise floor measurements ~~must be recorded~~.
268
- 269 12) At the end of the sound survey, monitor and record the battery condition
270 of the calibrator and all measuring instruments. Near the measurement
271 site, measure and record:
272
- 273 A) Windspeed and direction;
 - 274
 - 275 B) Ambient temperature;
 - 276
 - 277 C) Relative humidity; and
 - 278
 - 279 D) Barometric pressure.
- 280
- 281 13) Record the physical and topographical description of the ground surface
282 within the vicinity of the measurement site, survey site location, a
283 description of the sound source, a diagram of the area, the location of
284 reflective surfaces near the microphone, and the approximate location of
285 the noise source relative to the microphone position.
286
- 287 14) A magnetic tape recorder may be used to preserve the raw data. Record
288 calibration~~Calibration~~ signals ~~must be recorded~~ at the beginning and end
289 of each tape as well as at intermediate times such as when relocating to a
290 new measurement site. Record voice~~Voice~~ commentary concerning local
291 conditions and affected data blocks ~~must be recorded~~ on the cue track.
292 Preserve the~~The~~ original tape recording ~~must be preserved~~ for subsequent
293 evaluation.
294
- 295 15) Any laboratory~~Laboratory~~ analyses of~~may be performed on~~ magnetic tape-
296 recorded field data must include a~~—~~A description of the laboratory
297 instrumentation and procedures, along with correlation of~~must be~~
298 recorded~~—~~Analyses used in the laboratory analyses and~~must be correlated~~
299 to field measurement techniques.
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- d) Limiting Procedures for Specific Types of Data Acquisition
 - 1) For measurements of non-impulsive sound with audible discrete tones, measure 1/3 octave-band sound pressure levels to determine if must be obtained in determining whether a noise source complies is in compliance with 35 Ill. Adm. Code 901.106.
 - 2) For measurements of non-impulsive sound with no audible discrete tones, measure octave-band sound pressure levels to determine if must be obtained in determining whether a noise source complies is in compliance with 35 Ill. Adm. Code 901.102 and 901.103.
- e) Correction Factors

If necessary, apply correction factors rounded to the nearest 1/2 decibel ~~must be applied to~~ sound pressure level measurements. The correction factors applicable to the measurement system may include, ~~but are not limited to,~~ corrections for windscreen interference and the sound pressure level difference between consecutive field calibrations. Use Such calibration correction factors ~~must only be used to make negative corrections (subtraction from the field data). Do not add~~ ~~In no case must such calibration correction factors be added to the measured sound pressure levels so as to raise the sound pressure level field data.~~ The correction factors applicable to the measurement site may include, ~~but are not limited to,~~ corrections for reflective surfaces and ambient sound.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 910.106 Protocols for Determination of Sound Levels

- a) The raw data collection procedures for the determination of equivalent continuous sound pressure level (L_{eq}) are described in this Section using as an example the determination of a 1-hour L_{eq} corrected for ambient. The following procedures must be used:
 - 1) Using small blocks:
 - A) ~~Divide the~~The 1-hour interval ~~is divided into~~ many small blocks of time so that corruption of the data from short-term background, transient sound and loss of data can be limited to the corrupted or bad blocks. The block duration measured in seconds ~~is must~~ ~~remain~~ fixed for any measurement hour. The duration must be neither less than 10 seconds nor greater than 100 seconds. For example, if the block duration is chosen to be 60 seconds (1

343 minute), then the data collection proceeds for 60, 1-minute periods
 344 of measurement.

345
 346 B) The collected data for each block represents a block duration L_{eq}
 347 (or sound exposure level (SEL)) in octave-bands (or $\frac{1}{3}$
 348 octave-bands if prominent discrete tones may be present).

349
 350 C) ~~Data~~ Delete data for any block corrupted by one or more short-term
 351 background transient sounds ~~must be deleted~~.

352
 353 D) After deleting corrupted data blocks, there will be a fixed number
 354 of "good" data blocks remaining. This number is designated as
 355 N_{PLNS} , where PLNS stands for Property-Line-Noise-Source. These
 356 remaining "good" blocks ~~are~~ must be numbered consecutively. The
 357 subscript "i" is used to denote the numbering of the blocks in time
 358 order after corrupted data blocks have been deleted.

359
 360 E) The data for the N_{PLNS} remaining blocks are time averaged on an
 361 energy basis by octave (or $\frac{1}{3}$ octave-band) using Equation 1 below.
 362 In this equation, two subscripts are used, i to designate time and j
 363 to designate the specific frequency, either an octave-band or $\frac{1}{3}$
 364 octave-band. The raw, 1-hour L_{eq} in the j^{th} frequency band is given
 365 by:
 366

367
$$L_{eqj} = 10 \log \left(\frac{1}{N_{PLNS}} \sum_{i=1}^{N_{PLNS}} 10^{\left(\frac{L_{eqij}}{10} \right)} \right) \quad \text{[Equation 1]}$$

368
 369 where L_{eq} is the L_{eq} in the j^{th} frequency band for the i^{th} non-deleted
 370 data block.

371
 372 F) In terms of SEL, the raw SEL in the j^{th} frequency band is given by:

373
$$SEL_j = 10 \log \left(\sum_{i=1}^{N_{PLNS}} 10^{\left(\frac{SEL_{ij}}{10} \right)} \right) \quad \text{[Equation 2]}$$

374
 375 G) The raw, 1-hour L_{eq} in the j^{th} frequency band is given in terms of
 376 the corresponding SEL_j by:
 377

378
$$L_{eqj} = SEL_j + 10 \log \left(\frac{3600}{N_{PLNS} \Delta T} \right) \quad \text{[Equation 3]}$$

379

Where T is the block duration in seconds, N_{PLNS} is the number of non-discarded data blocks, and 3600 is the number of seconds in an hour.

2) Continuous Data Collection:

- A) ~~Adjust the~~The measuring instrument ~~must be adjusted~~ to continuously measure sound pressure and accumulate L_{eq} for each block of time. For convenience, the hour may be split into several smaller blocks such as 10, 6-minute blocks or 4, 15-minute blocks, etc.
- B) A switch on the measuring instrument must be available to inhibit data collection whenever a short-term background transient sound occurs. ~~Use this~~This switch shall be used to prevent short-term background ambient sounds from corrupting the data.
- C) Data collection must proceed for one hour. The energy average of the several measured L_{eqij} each weighted by the number of seconds actually accumulated during the ith block results in the raw, 1-hour L_{eq} in each frequency band given by:

$$L_{eqj} = 10 \log \left(\frac{1}{T_{PLNS}} \sum_{i=1}^{N_{PLNS}} T_i 10^{\left(\frac{L_{eqij}}{10}\right)} \right) \quad \text{[Equation 4]}$$

Where L_{eqij} is the L_{eq} in the jth frequency band for the ith large block. T_i is the actual number of seconds of "good" data accumulated in the ith block of time (e.g., 6 to 15 minutes); and

$$T_{PLNS} = \sum_{i=1}^{N_{PLNS}} T_i \quad \text{[Equation 5]}$$

3) Minimum Data Collection Requirements~~data collection requirements~~:

- A) Initial Measurement Duration. ~~Measure the~~The property-line-noise-source measurements ~~must proceed~~ initially for one hour. Because of correction for short-term background transient sounds, actual reported data collection time T, in seconds, may be less than 3600 seconds (one hour).

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- i) If small blocks of data are used for data collection, then the total measurement duration in seconds, T_{PLNS} , is given by $N_{PLNS} T$, where T is the length of each block in seconds and N_{PLNS} is the number of non-discarded blocks. If data inhibition is used for data collection, then T_{PLNS} is the number of non-inhibited seconds during the measurement hour. In either case, T_{PLNS} must be at least ~~no less than~~ 900 seconds.
 - ii) If very few blocks were used for data collection, then the duration of each block, T , may be too long and should be reduced.
 - iii) For either data collection method, sounds considered to be short-term transient may actually be part of the long-term background ambient and should be so redefined.
- B) Extended Measurement Duration. If T_{PLNS} is less than 900 seconds during the first hour of measurements, modify the raw data collection procedures ~~must be appropriately modified and take new measurements must proceed~~ for an additional hour. If T_{PLNS} after combining the first and the second hour of measurements is also less than 900 seconds, then collect additional ~~the raw data collection must continue using~~ the data inhibition method or method employed during the second hour until T_{PLNS} is greater than or equal to 900 seconds.
- 4) Correction for Long-Term Background Ambient Sound:
- A) The raw 1-hour L_{eq} must be corrected for long-term background ambient sound. Subsection (b) ~~of this Section~~ describes methods to obtain the long-term background ambient sound level in the j^{th} frequency band. The correction is dependent on the difference (in decibels) between the raw, 1-hour, j^{th} band property-line-noise-source- (L_{eqj}) and corresponding j^{th} band long-term background ambient sound level. The correction to be applied is as follows:
 - i) If the difference between the raw 1-hour L_{eq} and the long-term background ambient sound is larger than 10 decibels, then the correction is ~~must be~~ set to 0.
 - ii) If the difference between the raw 1-hour L_{eq} and the long-term background ambient sound difference is less than 3

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decibels, then the j^{th} frequency-band level, L_{eqj} , ~~is must be~~ set equal to 0.

- iii) If the difference between the raw 1-hour L_{eq} and the long-term background ambient sound is between 3 and 10 decibels, then the correction given in Table 1 ~~is below must~~ be subtracted from the raw, 1-hour property-line-noise-source L_{eqj} .

Table 1
Corrections in dB for long-term background ambient sound

Difference (dB)	Correction (dB)
3	3
4	2.3
5	1.7
6	1.3
7	1.0
8	0.7
9	0.6
10	0.5

- B) The long-term background ambient corrected level ~~is must be~~ the property-line-noise-source L_{eqj} reported for the j^{th} frequency band.

- b) Obtaining the Background Ambient Sound Level~~background ambient sound level:~~
 - 1) ~~Measure the~~The background ambient ~~must be measured for the purposes of this Section~~ during a 10-minute interval.
 - 2) Long-term background ambient measurement procedures are similar to procedures to measure the property-line-noise-source itself. Eliminating short-term background ambient transient sounds from the measurement of average long-term background ambient sound level, proceeds in a manner similar to the measurement of the property-line-noise-source emissions themselves. The two methods for measurement are: to divide the 10-minute measurement into short blocks of data, or inhibit data collection when short-term background transient sounds occur. The same method must be used for gathering both the property-line-noise-source data and the corresponding long-term background ambient data. The measurement

493 procedures for each method are given in subsections (b)(3), (b)(4) and
 494 (b)(5) ~~of this Section~~;

495
 496 3) Using Small Blocks of Data

497
 498 A) ~~Divide the~~The 10-minute measurement of long-term background
 499 ambient ~~must be divided into~~ short measurement blocks. The
 500 duration of these blocks in seconds (T) must:

- 501
 502 i) remain constant during the entire measurement, both when
 503 measuring the long-term background ambient and when
 504 measuring the property-line-noise-source; and;
- 505
 506 ii) ~~The duration of this measurement block in seconds, T, must~~
 507 divide exactly (without remainder) into 600 and must be
 508 neither greater than 100 seconds nor less than 10 seconds.

509
 510 B) ~~Discard~~All data for any measurement block corrupted by one or
 511 more short-term ambient transient sounds ~~must be discarded~~. The
 512 number of remaining, non-discarded measurement blocks is
 513 designated N_{BA} , where BA stands for background ambient.

514
 515 C) The L_{eq} for each octave- (or $\frac{1}{3}$ octave-) band are time-averaged on
 516 an energy basis over the N_{BA} remaining measurement blocks to
 517 obtain average long-term background ambient L_{eq} per band.
 518 Equation 1 (see subsection (a)(1)(E) ~~of this Section~~) is used for this
 519 calculation with N_{BA} replacing N_{PLNS} as the number of elemental
 520 blocks to be summed. The total duration of the measurement in
 521 seconds, T_{BA} , is given by N_{BA} multiplied by T .

522
 523 4) Continuous Data Collection

524
 525 A) ~~Adjust the~~The measuring instrument ~~must be adjusted~~ according to
 526 manufacturer's instructions to continuously measure sound
 527 pressure and accumulate (i.e. record) L_{eq} . A switch must be
 528 available to inhibit data collection whenever a short-term
 529 background transient sound occurs, (and on some instruments, a
 530 button may be available to delete the most recent, previous data).

531
 532 B) ~~Use the~~The switches or buttons ~~must be used to~~ prevent short-term
 533 background ambient sounds from corrupting the data.
 534

- 535 C) Data collection must proceed for 10 minutes. The result is the 10-
 536 minute, long-term background ambient L_{eq} in each band.
 537
- 538 D) T_{BA} is the number of non-inhibited measurement seconds during
 539 the 10-minute measurement period.
 540
- 541 5) The minimum duration, for either method, T_{BA} must be at least ~~no less~~
 542 ~~than~~ 150 seconds. If T_{BA} is less than 150 seconds, then continue to
 543 ~~measure the measurement of~~ the long-term background ambient ~~must~~
 544 ~~continue~~ beyond the original 10 minutes and until T_{BA} for the total long-
 545 term background ambient measurement is greater than or equal to 150
 546 seconds.
 547
- 548 6) Measurement Alternatives. The long-term background ambient noise
 549 should ideally be measured at the potential violation site just before
 550 measurement of the property-line-noise-source emissions. However,
 551 turning off the property-line-noise-source may not always be possible.
 552 The following are a hierarchical order of five procedures for obtaining the
 553 long-term background ambient noise. The first four procedures involve
 554 direct measurement; the fifth procedure provides for use of tables of
 555 values obtained from extensive measurements. These are not equivalent
 556 procedures but are ordered from what is considered to be the most
 557 accurate to what is considered to be the least accurate procedure.
 558
- 559 A) Direct Measurement Procedure-1: With the property-line-noise-
 560 source (PLNS) turned off, measure the long-term background
 561 ambient noise within the hour before or within the hour after
 562 measurement of the PLNS emissions at the location where the
 563 PLNS measurements are being taken and with the measurement
 564 equipment used for the PLNS measurements.
 565
- 566 B) Direct Measurement Procedure-2: With the PLNS turned off,
 567 measure the long-term background ambient during a similar time
 568 period in terms of background ambient sound level, within one to
 569 24 hours before, or within one to 24 hours after measurement of
 570 the PLNS emissions at the location where the PLNS measurements
 571 are being taken and with the measurement equipment used for the
 572 PLNS.
 573
- 574 C) Direct Measurement Procedure-3: With the PLNS turned off,
 575 measure the long-term background ambient during some other
 576 acoustically similar period within one to 30 days before, or within
 577 one to 30 days after measurement of the PLNS emissions. This

578 alternate long-term background ambient measurement time might
 579 be a Saturday night or anytime during a Sunday or holiday. The
 580 measurements would be made at the location where the PLNS
 581 measurements are being taken and with the measurement
 582 equipment (or like equipment) used for the PLNS measurement.
 583

584 D) Direct Measurement Procedure-4: With the PLNS turned off,
 585 measure the long-term background ambient noise during some
 586 other acoustically similar period within 30 to 90 days before, or
 587 within 30 to 90 days after measurement of the PLNS emissions.
 588 These measurements would be made at the location where the
 589 PLNS measurements are being taken and with the measurement
 590 equipment (or like equipment) used for the property-line-noise-
 591 source measurements.
 592

593 E) Tables of Long-Term Background Ambient Noise. ~~If~~ Where none
 594 of the alternatives can be used, use the applicable long-term
 595 background ambient data taken from Tables A through D in
 596 Appendix A ~~of this Part~~. These tables are organized by
 597 predominant land use and time of day (daytime or nighttime).
 598 There are separate tables for octave- and 1/3 octave-bands. The
 599 background environments presented in the table are based on
 600 extensive measurements conducted in the Chicago area and are
 601 divided into the five categories listed in this subsection (b)(6)
 602 ~~compliant given below in accordance with G.L. Bonvallet, "Levels~~
 603 ~~and Spectra of Traffic, Industrial, and Residential Area Noise,"~~
 604 ~~Journal of the Acoustical Society of America, 23 (4), pp 435-439,~~
 605 ~~July 1951; and Dwight E. Bishop and Paul D. Schomer, Handbook~~
 606 ~~of Acoustical Measurements and Noise Control, Chapter 50,~~
 607 ~~Community Noise Measurements, 3rd Edition, Cyril M Harris,~~
 608 ~~Editor, McGraw-Hill Book Co., New York (1991).~~
 609

610 i) Category 1: Noisy Commercial and Industrial Areas. Very
 611 heavy traffic conditions, such as in busy downtown
 612 commercial areas, at intersections of mass transportation
 613 and other vehicles, including the Chicago Transit Authority
 614 trains, heavy motor trucks and other heavy traffic, and
 615 street corners where motor buses and heavy trucks
 616 accelerate.
 617

618 ii) Category 2: Moderate Commercial and Industrial Areas,
 619 and Noisy Residential Areas. Heavy traffic areas with
 620 conditions similar to Category 1 subsection (b)(6)(E)(i) of

- 621 this Section but with somewhat less traffic, routes of
- 622 relatively heavy or fast automobile traffic but where heavy
- 623 truck traffic is not extremely dense, and motor bus routes.
- 624
- 625 iii) Category 3: Quiet Commercial and Industrial Areas, and
- 626 Moderate Residential Areas. Light traffic conditions where
- 627 no mass transportation vehicles and relatively few
- 628 automobiles and trucks pass, and where these vehicles
- 629 generally travel at low speeds. Residential areas and
- 630 commercial streets and intersections with little traffic
- 631 comprise this category.
- 632
- 633 iv) Category 4: Quiet Residential Areas. These areas are
- 634 similar to Category 3 in subsection (b)(6)(E)(iii) of this
- 635 Section but, for this group, the background is either distant
- 636 traffic or is unidentifiable.
- 637
- 638 v) Category 5: Very Quiet, Sparse Suburban or Rural Areas.
- 639 These areas are similar to Category 4 subsection
- 640 (b)(6)(E)(iv) of this Section but are usually in
- 641 unincorporated areas and, for this group, there are few if
- 642 any near neighbors.
- 643

644 (Source: Amended at 42 Ill. Reg. _____, effective _____)

645

646 **Section 910.107 Measurement Techniques for Highly-Impulsive Sound Under 35 Ill. Adm.**

647 **Code 901.104.**

648

- 649 a) Measurement of highly-impulsive sound under 35 Ill. Adm. Code 901.104 can be
- 650 made using in two distinct and equally valid ways specified in subsections (b) and
- 651 (c), namely the general method and the controlled test method.
- 652
- 653 b) General Method: The general method is to measure the 1-hour, A-weighted L_{eq}
- 654 (not the octave- or 1/3 octave-band levels) using essentially one of the two
- 655 procedures described in Sections 910.105 and 910.106.
- 656
- 657 1) The procedure using small blocks of time to collect data is as follows:
- 658
- 659 A) Divide theThe hour interval must be divided into small blocks of
- 660 time and measure the A-weighted L_{eq} must be measured for each of
- 661 these small blocks of time. L_{eq} is must be measured for the entire
- 662 hour but data collection is must be inhibited whenever a short-term
- 663 background transient sound occurs.

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B) The duration of each block ~~is~~ must be held constant during the hour. This duration in seconds ~~divides~~ must divide exactly into 900 and ~~is~~ must be neither greater than 100 seconds nor less than 10 seconds.

C) ~~Discard the~~The data for any block corrupted by one or more short-term background ambient sounds ~~must be discarded~~.

2) ~~The continuous data collection procedure is as follows:~~

A) ~~L_{eq} must be measured for the entire hour.~~

B) ~~Data collection must be inhibited whenever a short-term background transient sound occurs.~~

23) ~~Correction for the Long-term Background Ambient Sound.~~ long-term background ambient ~~Correct the raw 1-hour L_{eq} for long-term ambient sound~~ must be accomplished using the provisions of ~~all of the other procedures and requirements enumerated in Sections 910.105 and 910.106.~~ These requirements ~~must be complied with~~ to determine an A-weighted, 1-hour, background-ambient-corrected L_{eq} for the highly impulsive property-line-noise-source under study.

c) ~~Controlled Test Method:~~ For this method, the following procedures must be used:

1) General Measurement Description

A) The sound exposure per impulse from each separate individual impulsive source is measured.

B) The total sound exposure per hour from each source is the sound exposure per event multiplied by the number of events per hour.

C) The grand total sound exposure (SE) per hour is the sum of the sound exposures per hour from each of the separate individual sources.

D) The reported SEL is obtained from the grand total sound exposure (SE) per hour using the following:

$$SEL = 10 \log (SE) + 94 \qquad \qquad \qquad [Equation 7]$$

707 E) The equivalent level, L_{eq} corresponding to a SEL measured or
 708 predicted for one hour (3600 seconds) is given by:

709
 710
$$L_{eq} = SEL - 10 \log (3600) \qquad \text{[Equation 8]}$$

711
 712 2) Determination of Sound Exposure Per Event sound-exposure-per-event
 713 must be as follows:

714
 715 A) Determine the The sound exposure per event from each, separate,
 716 individual source ~~must be determined by measuring the total A-~~
 717 weighted sound exposure for about 10 repetitions of the this source.
 718 This set of about 10 measurements may be performed continuously
 719 over a short period of time, or ~~this set of measurements may be~~
 720 ~~performed over a discontinuous set of measurement periods.~~ In
 721 either case, the total measurement duration must be less than 100
 722 seconds.

723
 724 B) The These separate, individual property-line-noise-source
 725 ~~controlled measurements collected under subsection (a) must be~~
 726 free of any short-term ambient sounds. If any short-term
 727 background transient sounds occur during these measurements,
 728 repeat then the measurements measurement must be repeated until
 729 ~~measurement data, free of any corrupting short-term background~~
 730 ambient sounds, are obtained.

731
 732 C) Correct the The total measured A-weighted sound exposure for
 733 the this group of about 10 repetitions ~~must be corrected for long-~~
 734 term background ambient by subtracting the A-weighted long-term
 735 background ambient sound exposure, ~~which is.~~ The sound
 736 exposure value subtracted ~~must be the long-term A-weighted~~
 737 background ambient sound exposure per second multiplied by the
 738 number of seconds used to measure the several source repetitions.

739
 740 D) ~~The reported Source:~~ A-weighted sound exposure per event is must
 741 be the total corrected sound exposure divided by the number of
 742 source repetitions measured.

743
 744 E) Measure the long-term The background ambient ~~must be measured~~
 745 for a short time, at least 30 seconds as near in time to the source
 746 measurements as possible, but within 1/2 hour. The total A-
 747 weighted long-term background ambient sound exposure per
 748 second is the total measured long-term background ambient sound

749 exposure divided by the number of seconds of background ambient
750 measurement.

751
752 F) There must be no short-term background ambient sounds present
753 during the measurement of the long-term background ambient. If
754 any short-term background transient sounds occur during these
755 measurements, ~~repeat~~ then the measurements must be repeated until
756 long-term background ambient measurement data free of any
757 corrupting short-term background ambient sound are obtained.
758

759 (Source: Amended at 42 Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: ILLINOIS POLLUTION CONTROL BOARD

PART 910
MEASUREMENT PROCEDURES FOR THE ENFORCEMENT
OF 35 ILL. ADM. CODE 900 & 901

Section

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910.102 Instrumentation
910.103 Definitions
910.104 Measurement Techniques for 35 Ill. Adm. Code 900
910.105 Measurement Techniques for 35 Ill. Adm. Code 901
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910.107 Measurement Techniques for Highly-Impulsive Sound Under 35
Ill. Adm. Code 104

910.APPENDIX A Tables of Long-Term Background Ambient Noise
910.TABLE A Daytime long-term background ambient Leq levels in decibels
by land use categories and ~~1/3-2~~ octave-band level
910.TABLE B Nighttime long-term background ambient Leq levels in decibels
by land use categories and ~~1/3-2~~ octave-band level
910.TABLE C Daytime long-term background ambient Leq levels in decibels
by land use categories and octave-band level
910.TABLE D Nighttime long-term background ambient Leq levels in
decibels by land use categories and octave-band level

AUTHORITY: Implementing and authorized by Sections 25 and 27 of the
Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Adopted in R03-9 at 30 Ill. Reg. 5594, effective March 10,
2006; amended in R18-19 at 42 Ill. Reg. _____, effective
_____.

Section 910.100 General

This Part provides specifications for sound measurement
~~equipment specifies the instrumentation to be used when conducting~~
~~acoustical noise measurements as well as and sets forth~~ equipment as well
as the specific ~~sound~~ acoustical sound measurement techniques to be-
~~employed~~ used when conducting time-averaged sound level (Leq)
measurements for. ~~The instrumentation requirements and measurement~~
~~techniques as more specifically set forth in this Part must be used in~~
determining whether a noise source is ~~in compliance~~ compliant with 35
Ill. Adm. Code 900 and 901.

(Source: Amended at 42 Ill. Reg. _____, effective
_____)

Section 910.102 Instrumentation

a) Sound Measuring Equipment+

1) Use ~~Aaan~~ an integrating sound level meter ~~used~~ alone or ~~used~~ in conjunction with an octave-band or ~~1/3?~~ octave-band filter set or a real-time sound analyzer (octave-band or ~~1/3?~~ octave-band) ~~must conform~~ that complies with the following standards incorporated by reference at 35 Ill. Adm. Code 900.106:

A) ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-~~20131983~~ ~~(R2001)~~ 2013
"American National Standard Electroacoustics - Sound Level Meters - Part 1: Specifications (a nationally adopted international standard) ~~for~~
~~Sound Level Meters, and ANSI S1.4 A 1985 "Amendment to ANSI S1.4 1983,~~
~~."~~"

B) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-~~20141986~~ ~~(R1998)~~ "American
~~National Standard Electroacoustics - Specification for~~ 2014
Electroacoustics - Octave-Band and Fractional-Octave-Band ~~Analog and~~
~~Digital Filters - Part 1: Specifications~~ (a nationally adopted
international standard)."

C) ANSI/ASA S1.6-~~20161984~~ ~~(R2001)~~ "American National Standard 2016
"Preferred Frequencies and Filter Band Center, ~~Frequencies~~ Frequency
Levels, and Band Numbers, for Acoustical Measurements."

D) ANSI/ASA S1.8-~~20161989~~ "American National Standard 2016 "Reference
Values for Levels Used in ~~Quantities for~~ Acoustics and Vibrations
~~Vibrational Levels.~~"

E) ~~International Electrotechnical Commission,~~ IEC 61672-1:2013
~~804-2000~~ "Electroacoustics ~~Integrating/Averaging~~ Sound Level Meters -
Part 1: Specifications."

2) Use ~~aAa~~ a magnetic tape recorder, graphic level recorder or other
indicating device conforming ~~with used must meet the requirements of the~~
~~Society of Automotive Engineers (SAE) with the SAE~~ Recommended Practice
J184 "Qualifying a Sound Data Acquisition System," ~~August 2014~~ November
~~1998,~~ 2014, incorporated by reference at 35 Ill. Adm. Code 900.106.

3) ~~The laboratory calibration of instrumentation used for acoustic~~
~~measurement must be~~ Calibrate Calibrate sound measuring equipment
traceable to the National Bureau of Standards, ~~and must be performed no~~
~~less often than~~ at least once every 12 months.

4) For outdoor measurement, use a microphone with an attached
windscreen ~~must be attached to the microphone.~~

b) Weather Measuring Equipment+

1) ~~Use Aan~~ Us an anemometer and compass or other devices ~~must be used~~
to measure wind speed and direction in ~~accordance~~ compliance
with the manufacturer's recommended procedures.

2) Use ~~aAa~~ thermometer, designed to measure ambient temperature, ~~must be used in accordance~~in compliance with the manufacturer's recommended procedures.

3) Use ~~anAa~~ hygrometer ~~must be used in accordance~~in compliance with the manufacturer's recommended procedures to measure the relative humidity.

4) Use ~~aAa~~ barometer ~~must be used in accordance~~in compliance with the manufacturer's recommended procedures to measure the barometric pressure.

(Source: Amended at 42 Ill. Reg. , effective)

Section 910.104 Measurement Techniques for 35 Ill. Adm. Code 900

~~Sound pressure level measurements are not required to establish~~A violation of 35 Ill. Adm. Code 900.102 (nuisance noise) can be established without sound pressure level measurement. However, sound pressure level measurements may be introduced as corroborating evidence when alleging a violation of 35 Ill. Adm. Code ~~900.102.~~900.102 if ~~sound pressure level~~ measurements are collected in ~~accordance~~ compliance with the ~~,~~ manufacturer's instructions ~~must be followed~~ for the sound measuring equipment. ~~used and~~ The sound ~~measurement~~measuring techniques in 35 Ill. Adm. Code 910.105 may be used as guidance in gathering data.

(Source: Amended at 42 Ill. Reg. , effective)

Section 910.105 Measurement Techniques for 35 Ill. Adm. Code 901

To determine a noise source's compliance with 35 Ill. Adm. Code 901, sound ~~Sound~~ pressure level measurements are ~~must be~~ obtained using ~~in accordance with~~ the following measurement techniques ~~to determine whether a noise source is in compliance with 35 Ill. Adm. Code 901:~~

a) Site Selection

1) ~~Measurements may be taken at oOne~~One or more outdoor microphone positions ~~within the appropriate receiving land. Measurement instruments must be set up outdoors~~ may be chosen within the boundaries of the receiving land, as long as the positions are ~~for the purpose of determining whether a noise source is in compliance with 35 Ill. Adm. Code 901.~~2) Measurement instruments must be set up not less than at least 25 feet (7.6 meters (m)) from the property-line-noise-source. The 25-foot (7.6 m) setback ~~distance~~requirement~~distance~~ is from the noise source and not the property line unless the noise source is contiguous to the property line.

~~232)~~ Other measurement locations may be used for investigatory purposes, including ~~such as, but not limited to,~~ the following:

A) Determining the extent of noise pollution caused by the source of sound;

B) Determining the ambient; and

C) Analyzing those acoustical parameters that describe the sound source.

343) For measurements of sound sources with no audible discrete tones, set up the microphones ~~should not be set up at least~~ at least 25 feet (7.6 m) from any reflective surface that may affect data. If microphones are ~~measurements must be taken~~ are within 25 feet (7.6 m), determine the effect, if any, of the reflective surface on the measured data ~~must be determined~~.

454) For measurements of sound sources with audible discrete tones, set up the microphones ~~must not be set up at least~~ at least 50 feet (15.2 m) from any reflective surface that may affect data. If microphones ~~are measurements must be taken~~ are within 50 feet (15.2 m), determine the effect, if any, of the reflective surface on the measured data ~~must be determined~~.

565) Microphones need to be at least 5 feet (1.5 m) from ~~Objects with small objects dimensions~~ (trees, posts, bushes, etc.) ~~must not be within 5 feet (1.5 m) of the microphone position~~. If microphones are ~~measurements must be taken~~ within 5 feet (1.5 m) of ~~such~~ small objects, determine the effect, if any, on the measured data ~~must be determined~~.

b) Instrumentation Set Up

1) Set up a microphone ~~A tripod must be set~~ at the chosen site. ~~The tripod must be~~ extended to a height between 3 feet 8 inches (1.12 m) and 4 feet 10 inches (1.47 m) above ground.

2) Attach the microphone at the top of the tripod and connect it to the measuring instrument ~~with must be attached to the appropriate end of~~ with a 5-foot (1.5 m) or longer ~~cable and must be affixed to the top of the tripod. The other end of the cable must be connected to the measuring instrument~~ cable.

3) Adjust ~~The~~ the angle of incidence of the microphone ~~must be adjusted~~ to yield the flattest frequency response ~~in accordance~~ compliant with the manufacturer's specifications.

4) Separate ~~The~~ the measuring instrument ~~must be separated~~ from the microphone ~~so as~~ to minimize any influence on the measurements, and minimize any ~~The~~ cable movement ~~must be minimized~~ during the measurement period.

c) Measurement Site Operation and Instrument Calibration

- 1) Before taking sound pressure level measurements, measure and record (near the measurement site):
 - A) Wind speed and direction;
 - B) Ambient temperature;
 - C) Relative humidity; and
 - D) Barometric pressure.
- 2) Turn the measuring instrument on and allow the instrument to stabilize. Monitor and record the battery condition of the calibrator and all measuring instruments.
- 3) Turn the calibrator on at its appropriate frequency. Allow the calibrator to stabilize and calibrate the measuring system according to the manufacturer's specifications. After the measuring system has been calibrated, remove the calibrator and attach a windscreen to the microphone.
- 4) Adjust the microphone to the angle of incidence that will yield the frequency response ~~in accordance~~compliant with the manufacturer's specifications.
- 5) Measure the sound pressure level data within the limitations of subsection (d) and according to the manufacturer's recommended procedures. Other sound pressure levels may be used for investigatory purposes, including ~~such as, but not limited to,~~ the following:
 - A) Determining the extent of noise pollution caused by the source of sound;
 - B) Determining the ambient; and
 - C) Analyzing those acoustical parameters that describe the sound source.
- 6) While sound measurements are being taken, maintain distance between the operator ~~must be separated from~~ and the microphone ~~so as~~ to minimize any influence on the measurements.
- 7) While measurements are being taken, make visual and aural surveillance of extraneous sound sources and varying wind conditions ~~must be made~~ to ~~insure~~ensure that the conditions of measurement are accurately known. Record any variations in these parameters that may affect data. Record ~~the~~the number and basis for the affected data block ~~must be recorded~~. When using a tape recorder, record voice commentary concerning conditions ~~will be recorded~~ on the cue track.
- 8) ~~To minimize~~Minimize wind effects on the microphone by taking sound measurements ~~must not be taken~~ when the wind velocity is

~~less~~~~greater~~less than 12 miles per hour (5.4 m/second) at the microphone position.

9) For the purposes of data correction, determine the ambient sound at the measurement site ~~must be determined~~ by means of measurement or analysis.

10) After taking sound pressure level measurements, remove the windscreen and attach the calibrator to the microphone. Turn the calibrator on at its appropriate frequency. After allowing the calibrator to stabilize, monitor and record the measuring system response. If ~~When~~ the measuring system response varies by more than ~~+~~± 0.5 dB from the most recent field calibration, the sound pressure level measurements obtained since such most recent field calibration cannot be used for enforcement purposes.

11) Before removing the calibrator from the microphone, turn the calibrator off. If the ambient sound has not been determined by means of measurement, determine the noise floor of the measuring system. If the noise floor is within 10 dB of the measured sound pressure level data, record ~~thesuchthe~~the noise floor measurements ~~must be recorded~~.

12) At the end of the sound survey, monitor and record the battery condition of the calibrator and all measuring instruments. Near the measurement site, measure and record:

- A) Windspeed and direction;
- B) Ambient temperature;
- C) Relative humidity; and
- D) Barometric pressure.

13) Record the physical and topographical description of the ground surface within the vicinity of the measurement site, survey site location, a description of the sound source, a diagram of the area, the location of reflective surfaces near the microphone, and the approximate location of the noise source relative to the microphone position.

14) A magnetic tape recorder may be used to preserve the raw data. Record ~~Cealibration~~calibration signals ~~must be recorded~~ at the beginning and end of each tape as well as at intermediate times such as when relocating to a new measurement site. Record ~~Vveice~~voice commentary concerning local conditions and affected data ~~blocks~~must be recorded~~blocks~~ on the cue track. Preserve ~~Ttethe~~the original tape ~~recording~~must be preserved~~recording~~ for subsequent evaluation.

15) Any ~~L~~ laboratory analyses of ~~may be performed on~~ magnetic tape-recorded field data must include ~~A~~ a description of the laboratory instrumentation and procedures, along with a correlation of ~~must be~~

~~recorded. Analyses used in~~ the laboratory analyses ~~and must be correlated to~~ and field measurement techniques.

d) Limiting Procedures for Specific Types of Data Acquisition

1) For measurements of non-impulsive sound with audible discrete tones, measure ~~1/32~~ octave-band sound pressure levels ~~must be obtained in to determining whether to determine~~ if a noise source ~~is in compliance~~ complies with 35 Ill. Adm. Code 901.106.

2) For measurements of non-impulsive sound with no audible discrete tones, measure octave-band sound pressure levels ~~must be obtained in to determining whether to determine~~ if a noise source ~~is in compliance~~ complies with 35 Ill. Adm. Code 901.102 and 901.103.

e) Correction Factors

If necessary, apply correction factors rounded to the nearest 1/2 decibel ~~must be applied~~ to sound pressure level measurements. The correction factors applicable to the measurement system may include, ~~but are not limited to,~~ corrections for windscreen interference and the sound pressure level difference between consecutive field calibrations. ~~Such~~ Use calibration correction factors ~~must only be used~~ to make negative corrections (subtraction from the field data). Do not add ~~in no case must such~~ calibration correction factors ~~be added~~ to the measured sound pressure levels ~~so as~~ to raise the sound pressure level field data. The correction factors applicable to the measurement site may include, ~~but are not limited to,~~ corrections for reflective surfaces and ambient sound.

(Source: Amended at 42 Ill. Reg. , effective)

Section 910.106 Protocols for Determination of Sound Levels

a) The raw data collection procedures for the determination of equivalent continuous sound pressure level (Leq) are described in this Section using as an example the determination of a 1-hour Leq corrected for ambient. The following procedures must be used:

1) Using small blocks:

A) Divide the ~~The~~ 1-hour interval ~~is divided~~ into many small blocks of time so that corruption of the data from short-term background, transient sound and loss of data can be limited to the corrupted or bad blocks. The block duration measured in seconds ~~must is remain~~ fixed for any measurement hour. The duration must be neither less than 10 seconds nor greater than 100 seconds. For example, if the block duration is chosen to be 60 seconds (1 minute), then the data collection proceeds for 60, 1-minute periods of measurement.

B) The collected data for each block represents a block duration Leq (or sound exposure level (SEL)) in octave-bands (or ~~1/32~~ octave-bands if prominent discrete tones may be present).

C) Delete data ~~Data~~ for any block corrupted by one or more short-term background transient sounds ~~must be deleted~~.

D) After deleting corrupted data blocks, there will be a fixed number of "good" data blocks remaining. This number is designated as NPLNS, where PLNS stands for Property-Line-Noise-Source. These remaining "good" blocks are ~~must be~~ numbered consecutively. The subscript "i" is used to denote the numbering of the blocks in time order after corrupted data blocks have been deleted.

E) The data for the NPLNS remaining blocks are time averaged on an energy basis by octave (or ~~1/3?~~ octave-band) using Equation 1 below. In this equation, two subscripts are used, i to designate time and j to designate the specific frequency, either an octave-band or ~~1/3?~~ octave-band. The raw, 1-hour Leq in the jth frequency band is given by:

[Equation 1]

where Leq is the Leq in the jth frequency band for the ith non-deleted data block.

F) In terms of SEL, the raw SEL in the jth frequency band is given by:

[Equation 2]

G) The raw, 1-hour Leq in the jth frequency band is given in terms of the corresponding SELj by:

[Equation 3]

Where T is the block duration in seconds, NPLNS is the number of non-discarded data blocks, and 3600 is the number of seconds in an hour.

2) Continuous Data Collection+

A) Adjust ~~Tthe~~ measuring instrument ~~must be is adjusted~~ to continuously measure sound pressure and accumulate Leq for each block of time. For convenience, the hour may be split into several smaller blocks such as 10, 6-minute blocks or 4, 15-minute blocks, etc.

B) A switch on the measuring instrument must be available to inhibit data collection whenever a short-term background transient sound occurs. Use ~~Tthis~~ switch ~~shall be used~~ to prevent short-term background ambient sounds from corrupting the data.

C) Data collection must proceed for one hour. The energy average of the several measured Leqij each weighted by the number of seconds actually accumulated during the ith block results in the raw, 1-hour Leq in each frequency band given by:

[Equation 4]

Where Leq_{ij} is the Leq in the j th frequency band for the i th large block. T_i is the actual number of seconds of "good" data accumulated in the i th block of time (e.g., 6 to 15 minutes); and

[Equation 5]

3) Minimum ~~data collection requirements~~ Data Collection Requirements

A) Initial Measurement Duration. Measure ~~T~~ the property-line-noise-source ~~measurements must proceed~~ initially for one hour. Because of correction for short-term background transient sounds, actual reported data collection time T , in seconds, may be less than 3600 seconds (one hour).

i) If small blocks of data are used for data collection, then the total measurement duration in seconds, $TPLNS$, is given by $NPLNS T$, where T is the length of each block in seconds and $NPLNS$ is the number of non-discarded blocks. If data inhibition is used for data collection, then $TPLNS$ is the number of non-inhibited seconds during the measurement hour. In either case, $TPLNS$ must be ~~no less than~~ at least 900 seconds.

ii) If very few blocks were used for data collection, then the duration of each block, T , may be too long and should be reduced.

iii) For either data collection method, sounds considered to be short-term transient may actually be part of the long-term background ambient and should be so redefined.

B) Extended Measurement Duration. If $TPLNS$ is less than 900 seconds during the first hour of measurements, modify the raw data collection procedures ~~must be~~ appropriately ~~modified~~ and take new measurements ~~must proceed~~ for an additional hour. If $TPLNS$ after combining the first and the second hour of measurements is also less than 900 seconds, then collect ~~additional~~ the additional raw data ~~collection must continue~~ using the data inhibition method or method employed during the second hour until $TPLNS$ is greater than or equal to 900 seconds.

4) Correction for Long-Term Background Ambient Sound ~~+~~

A) The raw 1-hour Leq must be corrected for long-term background ambient sound. Subsection (b) ~~of this Section~~ describes methods to obtain the long-term background ambient sound level in the j th frequency band. The correction is dependent on the difference (in decibels) between the raw, 1-hour, j th band property-line-noise-source (~~+~~ Leq_j) and corresponding j th band long-term background ambient sound level. The correction to be applied is as follows:

i) If the difference between the raw 1-hour Leq and the long-term background ambient sound is larger than 10 decibels, then the correction is ~~must be~~ set to 0.

ii) If the difference between the raw 1-hour Leq and the long-term background ambient sound difference is less than 3 decibels, then the jth frequency-band level, Leqj, ~~must be~~ is set ~~equal~~ to 0.

iii) If the difference between the raw 1-hour Leq and the long-term background ambient sound is between 3 and 10 decibels, then the correction given in Table 1 ~~below must be~~ is subtracted from the raw, 1-hour property-line-noise-source Leqj.

Table 1
Corrections in dB for long-term
background ambient sound

Difference Correction (dB) (dB) 3 3 4 2.3 5 1.7 6 1.3 7 1.0 8 0.7 9 0.6 10 0.5

B) The long-term background ambient corrected level is ~~must be~~ the property-line-noise-source Leqj reported for the jth frequency band.

b) Obtaining the ~~background ambient sound level:~~ Background Ambient Sound Level

1) Measure ~~T~~ the background ambient ~~must be measured for the purposes of this Section~~ during a 10-minute interval.

2) Long-term background ambient measurement procedures are similar to procedures to measure the property-line-noise-source itself. Eliminating short-term background ambient transient sounds from the measurement of average long-term background ambient sound level, proceeds in a manner similar to the measurement of the property-line-noise-source emissions themselves. The two methods for measurement are: to divide the 10-minute measurement into short blocks of data, or inhibit data collection when short-term background transient sounds occur. The same method must be used for gathering both the property-line-noise-source data and the corresponding long-term background ambient data. The measurement procedures for each method are given in subsections (b) (3), (b) (4) and (b) (5) ~~of this Section:~~

3) Using Small Blocks of Data

A) Divide ~~T~~ the 10-minute measurement of long-term background ambient ~~must be divided~~ into short measurement blocks. The duration of these blocks in seconds (T) must:

i) remain constant during the entire measurement, both when measuring the long-term background ambient and when measuring the property-line-noise-source; and, ~~The duration of this measurement block in seconds, T, must~~

ii) divide exactly (without remainder) into ~~600,~~ 600 and must be neither greater than 100 seconds nor less than 10 seconds.

B) Discard ~~All~~ data for any measurement block corrupted by one or more short-term ambient transient sounds ~~must be discarded~~. The number

of remaining, non-discarded measurement blocks is designated NBA, where BA stands for background ambient.

C) The Leq for each octave- (or ~~1/32~~ octave-) band are time-averaged on an energy basis over the NBA remaining measurement blocks to obtain average long-term background ambient Leq per band. Equation 1 (see subsection (a) (1) (E) ~~of this Section~~) is used for this calculation with NBA replacing NPLNS as the number of elemental blocks to be summed. The total duration of the measurement in seconds, TBA, is given by NBA multiplied by T.

4) Continuous Data Collection

A) Adjust ~~T~~ the measuring instrument ~~must be adjusted~~ according to manufacturer's instructions to continuously measure sound pressure and accumulate (i.e. record) Leq. A switch must be available to inhibit data collection whenever a short-term background transient sound occurs, (and on some instruments, a button may be available to delete the most recent, previous data).

B) Use ~~T~~ the switches or buttons ~~must be used~~ to prevent short-term background ambient sounds from corrupting the data.

C) Data collection must proceed for 10 minutes. The result is the 10-minute, long-term background ambient Leq in each band.

D) TBA is the number of non-inhibited measurement seconds during the 10-minute measurement period.

5) The minimum duration, for either method, TBA must be ~~no less than~~ at least 150 seconds. If TBA is less than 150 seconds, then continue to ~~the measurement of measure~~ the long-term background ambient ~~must continue~~ beyond the original 10 minutes and until TBA for the total long-term background ambient measurement is greater than or equal to 150 seconds.

6) Measurement Alternatives. The long-term background ambient noise should ideally be measured at the potential violation site just before measurement of the property-line-noise-source emissions. However, turning off the property-line-noise-source may not always be possible. The following are a hierarchical order of five procedures for obtaining the long-term background ambient noise. The first four procedures involve direct measurement; the fifth procedure provides for use of tables of values obtained from extensive measurements. These are not equivalent procedures but are ordered from what is considered to be the most accurate to what is considered to be the least accurate procedure.

A) Direct Measurement Procedure-~~21~~: With the property-line-noise-source (PLNS) turned off, measure the long-term background ambient noise within the hour before or within the hour after measurement of the PLNS emissions at the location where the PLNS measurements are being taken and with the measurement equipment used for the PLNS measurements.

B) Direct Measurement Procedure-2: With the PLNS turned off, measure the long-term background ambient during a similar time period in terms of background ambient sound level, within one to 24 hours before, or within one to 24 hours after measurement of the PLNS emissions at the location where the PLNS measurements are being taken and with the measurement equipment used for the PLNS.

C) Direct Measurement Procedure-3: With the PLNS turned off, measure the long-term background ambient during some other acoustically similar period within one to 30 days before, or within one to 30 days after measurement of the PLNS emissions. This alternate long-term background ambient measurement time might be a Saturday night or anytime during a Sunday or holiday. The measurements would be made at the location where the PLNS measurements are being taken and with the measurement equipment (or like equipment) used for the PLNS measurement.

D) Direct Measurement Procedure-4: With the PLNS turned off, measure the long-term background ambient noise during some other acoustically similar period within 30 to 90 days before, or within 30 to 90 days after measurement of the PLNS emissions. These measurements would be made at the location where the PLNS measurements are being taken and with the measurement equipment (or like equipment) used for the property-line-noise-source measurements.

E) Tables of Long-Term Background Ambient Noise. ~~Where~~If none of the alternatives can be used, use the applicable long-term background ambient data taken from Tables A through D in Appendix A ~~of this Part~~. These tables are organized by predominant land use and time of day (daytime or nighttime). There are separate tables for octave- and ~~1/3-2~~ octave-bands. The background environments presented in the table are based on extensive measurements conducted in the Chicago area and are divided into the five categories ~~given below in accordance~~listed in this subsection (b) (6) compliant with G.L. Bonvallet, "Levels and Spectra of Traffic, Industrial, and Residential Area Noise," Journal of the Acoustical Society of America, 23 (4), pp 435-439, July 1951; and Dwight E. Bishop and Paul D. Schomer, Handbook of Acoustical Measurements and Noise Control, Chapter 50, Community Noise Measurements, 3rd Edition, Cyril M Harris, Editor, McGraw-Hill Book Co., New York (1991).

i) Category 1: Noisy Commercial and Industrial Areas. Very heavy traffic conditions, such as in busy downtown commercial areas, at intersections of mass transportation and other vehicles, including the Chicago Transit Authority trains, heavy motor trucks and other heavy traffic, and street corners where motor buses and heavy trucks accelerate.

ii) Category 2: Moderate Commercial and Industrial Areas, and Noisy Residential Areas. Heavy traffic areas with conditions similar to ~~subsection (b) (6) (E) (i) of this Section~~Category 1 but with somewhat less traffic, routes of relatively heavy or fast automobile traffic but where heavy truck traffic is not extremely dense, and motor bus routes.

iii) Category 3: Quiet Commercial and Industrial Areas, and Moderate Residential Areas. Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at low speeds. Residential areas and commercial streets and intersections with little traffic comprise this category.

iv) Category 4: Quiet Residential Areas. These areas are similar to Category 3 ~~in subsection (b) (6) (E) (iii) of this Section~~ but, for this group, the background is either distant traffic or is unidentifiable.

v) Category 5: Very Quiet, Sparse Suburban or Rural Areas. These areas are similar to Category 4 ~~subsection (b) (6) (E) (iv) of this Section~~ but are usually in unincorporated areas and, for this group, there are few if any near neighbors.

(Source: Amended at 42 Ill. Reg. , effective)

Section 910.107 Measurement Techniques for Highly-Impulsive Sound Under 35 Ill. Adm. Code 901.104.

a) Measurement of highly-impulsive sound under 35 Ill. Adm. Code 901.104 can be made using ~~in~~ two distinct and equally valid ways specified in subsections (b) and (c) ~~of this Section~~, namely the general method and the controlled test method.

b) General Method: The general method is to measure the 1-hour, A-weighted Leq (not the octave- or ~~1/3?~~ octave-band levels) using essentially one of the two procedures described in Sections 910.105 and 910.106.

1) The procedure using small blocks of time to collect data is as follows:

A) Divide ~~The 1 the~~ hour ~~must be~~ interval ~~divided~~ into small blocks of time and measure the A-weighted Leq ~~must be measured~~ for each of these ~~small blocks of time~~. Leq is ~~must be~~ measured for the entire hour, but data collection ~~must be~~ is inhibited whenever a short-term background transient sound occurs.

B) The duration of each block ~~is~~ must be held constant during the hour. This duration in seconds ~~must~~ divides exactly into ~~900, 900~~ and ~~must be~~ is neither greater than 100 seconds nor less than 10 seconds.

C) Discard ~~Tthe~~ the data for any block corrupted by one or more short-term background ambient sounds ~~must be discarded~~.

2) ~~The continuous data collection procedure is as follows:~~

A) ~~Leq must be measure for the entire hour.~~

B) ~~Data collection must be inhibited whenever a short term background transient sound occurs.~~ 23) Correction for the ~~long~~Long-term ~~background ambient sound~~Background Ambient Sound. Correct the raw 1-hour Leq ~~must be~~ for long-term ambient sound ~~accomplished~~ using ~~all of the other provisions~~cedures and requirements enumerated in the provisions of Sections 910.105 and ~~910.106~~. ~~These requirements must be complied with~~910.106 to determine an A-weighted, 1-hour, background-ambient-corrected Leq for the highly impulsive property-line-noise-source under study.

c) ~~Controlled Test Method: For this method, the following procedures must be used:~~

1) General Measurement Description

A) The sound exposure per impulse from each separate individual impulsive source is measured.

B) The total sound exposure per hour from each source is the sound exposure per event multiplied by the number of events per hour.

C) The grand total sound exposure (SE) per hour is the sum of the sound exposures per hour from each of the separate individual sources.

D) The reported SEL is obtained from the grand total sound exposure (SE) per hour using the following:

$$\text{SEL} = 10 \log (\text{SE}) + 94 \quad [\text{Equation } 7]$$

E) The equivalent level, Leq corresponding to a SEL measured or predicted for one hour (3600 seconds) is given by:

$$\text{Leq} = \text{SEL} - 10 \log (3600) \quad [\text{Equation } 8]$$

2) Determination of ~~sound exposure per event must be as follows:~~Sound Exposure Per Event

A) Determine ~~T~~ the sound exposure per event from each, separate, individual source ~~must be determined~~ by measuring the total A-weighted sound exposure for about 10 repetitions of the ~~is~~ source. This set of about 10 measurements may be performed continuously over a short period of time, or ~~this set of measurements may be performed~~ over a discontinuous set of measurement periods. In either case, the total measurement duration must be less than 100 seconds.

B) ~~These~~The separate, individual property-line-noise- source- ~~controlled~~ measurements collected under subsection (a) must be free of any short-term ambient sounds. If any short-term background transient

sounds occur during these measurements, ~~repeatthen repeat~~ the measurements ~~must be repeated~~ until measurement data, free of any corrupting short-term background ambient sounds, are obtained.

C) Correct ~~T~~ the total measured A-weighted sound exposure for ~~theis~~the group of about 10 repetitions ~~must be corrected~~ for long-term background ambient by subtracting the A-weighted long-term background ambient sound exposure, which is ~~—The sound exposure value subtracted—~~ ~~must be~~ the long-term A-weighted background ambient sound exposure per second multiplied by the number of seconds used to measure the several source repetitions.

D) ~~The reported Source:—~~ A-weighted sound exposure per event is ~~must be~~ the total corrected sound exposure divided by the number of source repetitions measured.

E) Measure ~~T~~the long-term background ambient ~~must be measured~~ for a short time, at least 30 seconds as near in time to the source measurements as possible, but within 1/2 hour. The total A-weighted long-term background ambient sound exposure per second is the total measured long-term background ambient sound exposure divided by the number of seconds of background ambient measurement.

F) There must be no short-term background ambient sounds present during the measurement of the long-term background ambient. If any short-term background transient sounds occur during these measurements, ~~repeatthen repeat~~ the measurements ~~must be repeated~~ until long-term background ambient measurement data free of any corrupting short-term background ambient sound are obtained.

(Source: Amended at 42 Ill. Reg. ~~_____~~ _____, effective _____)
~~ILLINOIS REGISTER~~

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

~~JCAR350910-1806001r01~~

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Document 1 ID	file:///I:\Input\Agency Rulemakings - Files Received\2018\March 2018\35-910-Agency-Proposed(iss14).docx
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Format changed	0
Total changes	359

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Sound Emission Standards and Limitations for Motor Vehicles
- 2) Code Citation: 35 Ill. Adm. Code 902
- 3)

<u>Section Numbers</u> :	<u>Proposed Actions</u> :
902.101	Amendment
902.102	Amendment
902.120	Amendment
902.121	Amendment
902.122	Amendment
902.123	Amendment
902.124	Amendment
902.125	Amendment
902.140	Amendment
902.141	Repealed
902.APPENDIX A	Repealed
- 4) Statutory Authority: Implementing and authorized by Sections 27 and 28 of the Illinois Environmental Protection Act [415 ILCS 5/27 and 28].
- 5) A Complete Description of the Subjects and Issues Involved: In Part 902, the Board clarifies language, removes obsolete provisions, and replaces language that duplicate federal rules with references to the Code of Federal Regulations.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Will this rulemaking replace any emergency rule currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? Yes
- 10) Are there any other rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objective: The amendments streamline, update, and overhaul rules that are no longer current due to changing technology and the passage of time. The proposed changes involve updating definitions, references, and sound measurement procedures.

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APR - 4 2018

STATE OF ILLINOIS
Pollution Control Board

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comments on this proposal for a period of at least 45 days after the date of publication in the *Illinois Register*. Public comments must be filed with the Clerk of the Board. Public comments should reference Docket R18-19 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
JRTC
100 W. Randolph St., Suite 11-500
Chicago IL 60601

Public comments may also be filed electronically through the Clerk's Office On-Line (COOL) on the Board's website at www.ipcb.state.il.us.

Interested persons may request copies of the Board's opinion and order in R18-19 by calling the Clerk's office at 312/814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

- 13) Initial Regulatory Flexibility Analysis:
- A) Types of small businesses, small municipalities and not-for-profit corporations affected: None, amendments are not substantive.
 - B) Reporting, bookkeeping or other procedures required for compliance: None
 - C) Types of Professional skills necessary for compliance: None
- 14) Regulatory Agenda on which this rulemaking was summarized: July 2017

The full text of the Proposed Amendments begins on the next page:

JCAR350902-1805988r01

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE H: NOISE
3 CHAPTER I: POLLUTION CONTROL BOARD

4
5 PART 902
6 SOUND EMISSION STANDARDS AND
7 LIMITATIONS FOR MOTOR VEHICLES

8
9 SUBPART A: EQUIPMENT STANDARDS
10 APPLICABLE TO ALL MOTOR VEHICLES

- 11 Section
12 902.101 Exhaust System
13 902.102 Tires

14
15
16 SUBPART B: OPERATIONAL STANDARDS

- 17 Section
18 902.120 Standards Applicable to all Passenger Cars and to Other Motor Vehicles with
19 Gross Vehicle Weight (GVW) of 8,000 Pounds or Less
20 902.121 Standards Applicable to Motor Vehicles with GVW in Excess of 8,000 Pounds
21 902.122 Standards Applicable to Motorcycles and Motor Driven Cycles
22 902.123 ~~Exception for and Standards Applicable to Motor Carriers Engaged in Interstate~~
23 ~~Commerce with Respect to Operations Regulated Under Pursuant to the Federal~~
24 ~~Noise Control Act of 1972~~
25 902.124 Horns and Other Warning Devices
26 902.125 Tire Noise

27
28
29 SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902

- 30 Section
31 902.140 Exceptions
32 902.141 Compliance Dates (Repealed)
33
34 902.APPENDIX A Old Rule Numbers Referenced (Repealed)

35
36
37 AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental
38 Protection Act [415 ILCS 5/25 and 27].

39
40 SOURCE: Originally filed as Part 3 of Chapter 8: Noise Pollution, effective May 31, 1977;
41 codified at 7 Ill. Reg. 13648; amended in R18-19 at 42 Ill. Reg. _____, effective
42 _____.

43

SUBPART A: EQUIPMENT STANDARDS
APPLICABLE TO ALL MOTOR VEHICLES

Section 902.101 Exhaust System

~~Operation~~No person shall operate or cause or allow the operation of a motor vehicle on a public right of way must comply with the requirements of 625 ILCS 5/12-602 and 40 CFR 202.22, incorporated by reference at 35 Ill. Adm. Code 900.106, unless it is at all times equipped with an adequate muffler or other sound dissipative device which is:

- a) ~~In constant operation and properly maintained to prevent any excessive or unusual noise;~~
- b) ~~Free from defects which affect sound reduction; and~~
- e) ~~Not modified in a manner which will amplify or increase the noise of such muffler or other sound dissipative device above that emitted by the muffler originally installed on the vehicle so as to produce excessive or unusual noise.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.102 Tires

~~Operation~~No person shall operate or cause or allow the operation of any a motor vehicle with one or more tires, regardless of weight, must comply with the requirements of 40 CFR 202.23, incorporated by reference at 35 Ill. Adm. Code 900.106, having a tread pattern which is composed primarily of cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

SUBPART B: OPERATIONAL STANDARDS

Section 902.120 Standards Applicable to all Passenger Cars and to Other Motor Vehicles with Gross Vehicle Weight (GVW) of 8,000 Pounds or Less

- a) ~~This Section applies~~rule shall apply to all passenger cars regardless of weight and to other motor vehicles with a GVW~~gross vehicle weight~~ of 8,000 pounds or less, except motorcycles and motor driven cycles.
- b) ~~Operation~~No person shall operate or cause or allow the operation of a motor vehicle subject to this Section~~rule~~ at any time under any conditions of highway grade, load, acceleration or deceleration must not~~in such a manner as to exceed~~

the following limits:

- 1) On highways with speed limits of 35 miles per hour or less, 74 dB(A), or 76 dB(A) when operating on a grade exceeding 3%, measured with fast meter response at 50 feet from the centerline of lane of travel, ~~or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;~~
- 2) On highways with speed limits of more than 35 miles per hour, 82 dB(A), or 85 dB(A) if the vehicle is equipped with two or more snow or mud/snow tires, measured with fast meter response at 50 feet from the centerline of lane of travel, ~~or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.121 Standards Applicable to Motor Vehicles with GVW in Excess of 8,000 Pounds

- a) ~~This Section applies~~rule shall apply to motor vehicles with a GVW~~gross vehicle weight in excess of 8,000 pounds, except passenger cars.~~
- b) ~~Operation~~No person shall operate or cause or allow the operation of a motor vehicle subject to this ~~Section~~rule at any time under any conditions of highway grade, load, acceleration or deceleration ~~must not~~in such a manner as to exceed the following limits at 40 CFR 202.20(a), incorporated by reference at 35 Ill. Adm. Code 900.106.÷
 - 1) ~~On highways with speed limits of 35 miles per hour or less, 86 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;~~
 - 2) ~~On highways with speed limits of more than 35 miles per hour, 90 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~
- c) ~~Operation~~No person shall operate or cause or allow the operation of a motor vehicle subject to this ~~Section~~rule, powered by an engine with an engine speed governor, ~~must not~~exceed the standard for operation under the stationary test at 40 CFR 202.21(a), incorporated by reference at 35 Ill. Adm. Code 900.106.~~which generates a sound level in excess of 88 dB(A) measured with fast meter response~~

at 50 feet from the longitudinal centerline of the vehicle or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103, when that engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.122 Standards Applicable to Motorcycles and Motor Driven Cycles

Operation of any motorcycle or motor driven cycle must comply with the motorcycle noise emission standards at 40 CFR 205.152(a) and the motorcycle exhaust systems noise emissions standards at 40 CFR 205.166, incorporated by reference at 35 Ill. Adm. Code 900.106.

- a) This rule shall apply to all motorcycles and motor driven cycles.
- b) No person shall operate or cause or allow the operation of a motor vehicle subject to this rule at any time or under any conditions of highway grade, load, acceleration or deceleration in such a manner as to exceed the following limits:
 - 1) On highways with speed limits of 35 miles per hour or less, 80 dB(A), or 82 dB(A) when operating on a grade exceeding 3%, measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;
 - 2) On highways with speed limits of more than 35 miles per hour, 86 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.123 Exception for and Standards Applicable to Motor Carriers Engaged in Interstate Commerce with Respect to Operations Regulated Under Pursuant to the Federal Noise Control Act of 1972

- a) This Part appliesApplicability1)After the effective date of the federal standards contained in 40 CFR Part 202, this rule shall apply to motor carriers engaged in interstate commerce with respect to noise emissions regulated by such federal standards. Motor carrier operations subject todetermined pursuant to 35 Ill. Adm. Code 900.104 to be governed by this Part are rule shall be excepted from SectionsSection 902.101, 902.102 and 902.121.

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- b2) ~~This Part applies~~rule shall apply to motor carriers with respect only to the operation of these motor vehicles ~~that of such carriers which have a GVWR~~gross vehicle weight rating or gross combination weight rating in excess of 10,000 pounds, and only when ~~thosesuch~~ motor vehicles are operated under the conditions specified ~~in this Section~~below.
- c3) Except as provided in ~~subsection (d)~~subparagraph (4) of this paragraph (a), this ~~Part applies~~rule shall apply to the total sound produced by ~~sueh~~ motor vehicles when operating under the specified conditions, including the sound produced by auxiliary equipment mounted on ~~thesueh~~ motor vehicles.
- d4) This ~~Part does~~rule shall not apply to auxiliary equipment ~~that~~which is normally operated only when the transporting vehicle is stationary or is moving at a speed of 5 miles per hour or less. Examples of ~~this~~sueh equipment include, but are not limited to, cranes, asphalt spreaders, ditch diggers, liquid or slurry pumps, air compressors, welders, and refuse compactors.
- b) Equipment Standards
 - 1) ~~Visual exhaust system inspection~~
No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable unless the exhaust system of such vehicle is:
 - A) ~~Equipped with a muffler or other noise dissipative device;~~
 - B) ~~Free from defects which affect sound reduction; and~~
 - C) ~~Not equipped with any cutout, bypass or similar device.~~
 - 2) ~~Visual tire inspection~~
No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable on a tire or tires having a tread pattern which as originally manufactured, or as newly retreaded, is composed primarily of cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire. ~~This subparagraph (2) shall not apply to any motor vehicle which is demonstrated by the motor carrier which operates it to be in compliance with the noise emission standard specified in paragraph (c) of this rule for operation on highways with speed limits of more than 35 miles per hour, if the demonstration is conducted at the highway speed limit in effect at the inspection location~~

216 or, if speed is unlimited, the demonstration is conducted at a speed of 65
217 miles per hour.
218

219 e) Standards for Highway Operation

220 No motor carrier subject to this rule shall operate any motor vehicle of a type with
221 respect to which this rule is applicable and which at any time or under any
222 condition of highway grade, load, acceleration or deceleration generates a sound
223 level in excess of 86 dB(A) measured on an open site with fast meter response at
224 50 feet from the centerline of lane of travel on highways with speed limits of 35
225 miles per hour or less; or 90 dB(A) measured on an open site with fast meter
226 response at 50 feet from the centerline of lane of travel on highways with speed
227 limits of more than 35 miles per hour.
228

229 d) Standard for Operation under Stationary Test

230 No motor carrier subject to this rule shall operate any motor vehicle of a type with
231 respect to which this rule is applicable, and which is equipped with an engine
232 speed governor, which generates a sound level in excess of 88 dB(A) measured on
233 an open site with fast meter response at 50 feet from the longitudinal centerline of
234 the vehicle, when its engine is accelerated from idle with wide open throttle to
235 governed speed with the vehicle stationary, transmission in neutral, and clutch
236 engaged.
237

238 e) Additional Definitions Applicable Only to this Rule
239

240 1) Common carrier by motor vehicle: any person who holds himself out to
241 the general public to engage in the transportation by motor vehicle in
242 interstate or foreign commerce of passengers or property or any class or
243 classes thereof for compensation, whether over regular or irregular routes.
244

245 2) Contract carrier by motor vehicle: any person who engages in
246 transportation by motor vehicle of passengers or property in interstate or
247 foreign commerce for compensation (other than transportation referred to
248 in subparagraph (1) of this paragraph) under continuing contracts with one
249 person or a limited number of persons either

250
251 A) for the furnishing of transportation services through the assignment
252 of motor vehicles for a continuing period of time to the exclusive
253 use of each person served or
254

255 B) for the furnishing of transportation services designed to meet the
256 distinct need of each individual customer.
257

258 3) Gross combination weight rating: the value specified by the manufacturer

- 259 as the loaded weight of a combination vehicle.
- 260
- 261 4) ~~Gross vehicle weight rating: the value specified by the manufacturer as~~
- 262 ~~the loaded weight of a single vehicle.~~
- 263
- 264 5) ~~Interstate commerce: the commerce between any place in a State and any~~
- 265 ~~place in another State or between places in the same State through another~~
- 266 ~~State, whether such commerce moves wholly by motor vehicle or partly~~
- 267 ~~by motor vehicle and partly by rail, express, water or air. This definition~~
- 268 ~~of "interstate commerce" for purposes of this rule is the same as the~~
- 269 ~~definition of "interstate commerce" in Section 203(a) of the Interstate~~
- 270 ~~Commerce Act (49 U.S.C. Section 303(a)).~~
- 271
- 272 6) ~~Motor carrier: a common carrier by motor vehicle, a contract carrier by~~
- 273 ~~motor vehicle, or a private carrier of property by motor vehicle, as those~~
- 274 ~~terms are defined by paragraphs (14), (15), and (17) of Section 203(a) of~~
- 275 ~~the Interstate Commerce Act (49 U.S.C. 303(a)). The term "motor carrier"~~
- 276 ~~includes those entities which own and operate the subject motor vehicles,~~
- 277 ~~but not the drivers thereof, unless said drivers are independent truckers~~
- 278 ~~who both own and drive their own vehicles.~~
- 279
- 280 7) ~~Open site: an area that is essentially free of large sound-reflecting objects,~~
- 281 ~~such as barriers, walls, board fences, signboards, parked vehicles, bridges~~
- 282 ~~or buildings.~~
- 283
- 284 8) ~~Private carrier of property by motor vehicle: any person not included in~~
- 285 ~~terms "common carrier by motor vehicle" or "contract carrier by motor~~
- 286 ~~vehicle", who transports in interstate or foreign commerce by motor~~
- 287 ~~vehicle property of which such person is the owner, lessee, or bailee, when~~
- 288 ~~such transportation is for sale, lease, rent or bailment, or in furtherance of~~
- 289 ~~any commercial enterprise.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.124 Horns and Other Warning Devices

The use of a horn and other warning device must comply with the requirements of 625 ILCS 5/12-601.

- 298 a) ~~No person shall sound a horn when upon a highway, except when reasonably~~
- 299 ~~necessary to insure safe operation. No person shall sound any horn on any motor~~
- 300 ~~vehicle for an unreasonable period of time or in a manner so as to circumvent~~
- 301 ~~enforcement of the operational standards contained in this Subpart B.~~

302
303 b) No person shall sound any siren, whistle or bell of any motor vehicle except as
304 provided in Ill. Rev. Stat. 1981, ch. 95½, par. 12-601(b).
305

306 (Source: Amended at 42 Ill. Reg. _____, effective _____)
307

308 **Section 902.125 Tire Noise**
309

310 ~~Operation of~~No person shall operate a motor vehicle in such a manner resulting in ~~as to cause or~~
311 ~~allow to be emitted~~ squealing, screeching or other such noise being omitted from the tires in
312 ~~contact with the ground is prohibited~~ because of rapid acceleration or excessive speed around
313 ~~corners or other such reason~~, except that noise resulting from emergency operation to avoid
314 ~~imminent danger is~~shall be exempt from this provision.
315

316 (Source: Amended at 42 Ill. Reg. _____, effective _____)
317

318 SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902
319

320 **Section 902.140 Exceptions**
321

322 a) The standards and limitations of this Part ~~do~~ 902 shall not apply to:
323

- 324 1) ~~Any~~any vehicle moved by human or animal powers;
325
326 2) ~~Any~~any vehicle moved by electrical power;
327
328 3) ~~Any~~any vehicle used exclusively upon stationary rails or tracks;
329
330 4) ~~Any~~any farm tractor;
331
332 5) ~~Any~~any antique vehicle, if licensed under Section 3-804 of the Illinois
333 Vehicle Code [625 ILCS 5/3-804]Ill. Rev. Stat. 1981, ch. 95½, par. 3-804;
334
335 6) ~~Any~~any snowmobile subject to 35 Ill. Adm. Code 905;
336
337 7) ~~Any~~any special mobile equipment;
338
339 8) ~~Any~~any vehicle while being used lawfully for racing competition or time
340 racing events; and
341
342 9) ~~Any~~any lawn care maintenance equipment.
343

344 b) ~~Section~~Sections 902.102 ~~does~~and 902.123(b)(2) shall not apply to any person who

345 can show that a tread pattern as described in that Section~~those rules~~ was the result
346 of wear and that the tire was not originally manufactured or newly retreaded with
347 such a tread pattern.
348

- 349 c) The operational standards contained in this Part do~~Sections 902.120 through~~
350 ~~902.123 inclusive shall not apply to warning devices, such as horns and sirens; or~~
351 ~~to emergency equipment and vehicles described in 40 CFR 202.12(e),~~
352 ~~incorporated by reference at 35 Ill. Adm. Code 900.106, such as fire engines,~~
353 ~~ambulances, police vans, and rescue vans, when respond to emergency calls; to~~
354 ~~snow plows when in operation; or to tactical military vehicles.~~
355

356 (Source: Amended at 42 Ill. Reg. _____, effective _____)
357

358 **Section 902.141 Compliance Dates (Repealed)**
359

- 360 a) ~~Except as otherwise provided in this rule, any person subject to the standards and~~
361 ~~limitations of this Part shall comply with such standards and limitations on and~~
362 ~~after November 30, 1977.~~
363
364 b) ~~Every owner or operator of a motor vehiele subject to Section 902.102 shall~~
365 ~~comply with such rule on and after May 31, 1978.~~
366
367 e) ~~Every owner or operator of a motor vehiele subject to Section 902.120(b)(2) or~~
368 ~~902.121(b)(2) shall comply with such rule on and after May 31, 1978.~~
369
370 d) ~~Every motor carrier subject to Section 902.123 shall comply with such rule on and~~
371 ~~after May 31, 1977.~~
372

373 (Source: Repealed at 42 Ill. Reg. _____, effective _____)
374

375
376 **Section 902.APPENDIX A Old Rule Numbers Referenced (Repealed)**
377
378 The following table is provided to aid in referencing old Board rule numbers to section numbers
379 pursuant to codification.
380

Old Part 3 of Chapter 8	35 Ill. Adm. Code Part 902
Rule 301	Section 902.101
Rule 310	Section 902.120
Rule 311	Section 902.121
Rule 312	Section 902.122
Rule 313	Section 902.123
Rule 314	Section 902.124
Rule 315	Section 902.125
Rule 320	Section 902.140
Rule 321	Section 902.141

381
382 (Source: Repealed at 42 Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: POLLUTION CONTROL BOARD

PART 902
SOUND EMISSION STANDARDS AND
LIMITATIONS FOR MOTOR VEHICLES

SUBPART A: EQUIPMENT STANDARDS
APPLICABLE TO ALL MOTOR VEHICLES

Section
902.101 Exhaust System
902.102 Tires

SUBPART B: OPERATIONAL STANDARDS

Section
902.120 Standards Applicable to all Passenger Cars and to Other Motor
Vehicles with Gross Vehicle Weight (GVW) of 8,000 Pounds or Less
902.121 Standards Applicable to Motor Vehicles with GVW in Excess of
8,000 Pounds
902.122 Standards Applicable to Motorcycles and Motor Driven Cycles
902.123 Exception for ~~and Standards Applicable to~~ Motor Carriers
Engaged in Interstate Commerce with Respect to Operations Regulated
~~Pursuant to~~ Under the Federal Noise Control Act of 1972
902.124 Horns and Other Warning Devices
902.125 Tire Noise

SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902

Section
902.140 Exceptions
902.141 Compliance Dates (Repealed)

~~902. Appendix A OLD RULE NUMBERS REFERENCED~~ APPENDIX A Old Rule Numbers
Referenced (Repealed)

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the
Environmental Protection Act ~~+[415 ILCS 5/25 and 27+]~~.

SOURCE: Originally filed as Part 3 of Chapter 8: Noise Pollution,
effective May 31, 1977; codified at 7 Ill. Reg. 13648; amended in R18-19
at 42 Ill. Reg. = _____, effective _____.

SUBPART A: EQUIPMENT STANDARDS
APPLICABLE TO ALL MOTOR VEHICLES

Section 902.101 Exhaust System

~~Operation~~ ~~No person shall operate or cause or allow the~~
~~operation~~ Operation of a motor vehicle on a public right of way must

comply with the requirements of 625 ILCS 5/12-602 and 40 CFR 202.22, incorporated by reference at 35 Ill. Adm. Code 900.106. ~~unless it is at all times equipped with an adequate muffler or other sound dissipative device which is:~~

~~a) In constant operation and properly maintained to prevent any excessive or unusual noise;~~

~~b) Free from defects which affect sound reduction; and~~

~~c) Not modified in a manner which will amplify or increase the noise of such muffler or other sound dissipative device above that emitted by the muffler originally installed on the vehicle so as to produce excessive or unusual noise.~~

(Source: Amended at 42 Ill. Reg. , effective)

Section 902.102 Tires

~~Operation~~~~No person shall operate or cause or allow the operation~~Operation of any ~~a~~ motor vehicle with one or more tires, regardless of weight, must comply with the requirements of 40 CFR 202.23, incorporated by reference at 35 Ill. Adm. Code 900.106. ~~having a tread pattern which is composed primarily of cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire.~~

(Source: Amended at 42 Ill. Reg. , effective)

SUBPART B: OPERATIONAL STANDARDS

Section 902.120 Standards Applicable to all Passenger Cars and to Other Motor Vehicles with Gross Vehicle Weight (GVW) of 8,000 Pounds or Less

a) This ~~Section rule applies~~Section applies to all passenger cars regardless of weight and to other motor vehicles with a ~~GVW gross vehicle weight~~GVW of 8,000 pounds or less, except motorcycles and motor driven cycles.

b) ~~Operation~~~~No person shall operate or cause or allow the operation~~Operation of a motor vehicle subject to this ~~rule~~SectionSection at any time under any conditions of highway grade, load, acceleration or deceleration must ~~not in such a manner as to~~not exceed the following limits:

1) On highways with speed limits of 35 miles per hour or less, 74 dB(A), or 76 dB(A) when operating on a grade exceeding 3%, measured with fast meter response at 50 feet from the centerline of lane of travel, ~~or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;~~

2) On highways with speed limits of more than 35 miles per hour, 82 dB(A), or 85 dB(A) if the vehicle is equipped with two or more snow or mud/snow tires, measured with fast meter response at 50 feet from the centerline of lane of travel, ~~or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.121 Standards Applicable to Motor Vehicles with GVW in Excess of 8,000 Pounds

a) This ~~Section rule applies shall apply~~ Section applies to motor vehicles with a ~~GVW gross vehicle weight~~ GVW in excess of 8,000 pounds, ~~except passenger cars.~~

b) ~~Operation No person shall operate or cause or allow the operation~~ Operation of a motor vehicle subject to this ~~Section rule~~ Section at any time under any conditions of highway grade, load, acceleration or deceleration must ~~not in such a manner as to not~~ not exceed the ~~following~~ limits at 40 CFR 202.20(a), incorporated by reference at 35 Ill. Adm. Code 900.106.†

1) ~~On highways with speed limits of 35 miles per hour or less, 86 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103,~~

2) ~~On highways with speed limits of more than 35 miles per hour, 90 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~

c) ~~No person shall operate or cause or allow the operation~~ Operation of a motor vehicle subject to this ~~Section rule~~ Section, powered by an engine with an engine speed governor, must not ~~exceed which generates~~ exceed the standard for operation under the stationary test at 40 CFR 202.21(a), incorporated by reference at 35 Ill. Adm. Code 900.106. ~~a sound level in excess of 88 dB(A) measured with fast meter response at 50 feet from the longitudinal centerline of the vehicle or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103, when that engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.122 Standards Applicable to Motorcycles and Motor Driven Cycles

Operation of any motorcycle or motor driven cycle must comply with the motorcycle noise emission standards at 40 CFR 205.152(a) and the motorcycle exhaust systems noise emissions standards at 40 CFR 205.166, incorporated by reference at 35 Ill. Adm. Code 900.106.

~~a) This rule shall apply to all motorcycles and motor driven cycles.~~

~~b) No person shall operate or cause or allow the operation of a motor vehicle subject to this rule at any time or under any conditions of highway grade, load, acceleration or deceleration in such a manner as to exceed the following limits:~~

~~1) On highways with speed limits of 35 miles per hour or less, 80 dB(A), or 82 dB(A) when operating on a grade exceeding 3%, measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;~~

~~2) On highways with speed limits of more than 35 miles per hour, 86 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.123 Exception for ~~and Standards Applicable to~~ Motor Carriers Engaged in Interstate Commerce with Respect to Operations Regulated ~~Pursuant to~~ Under the Federal Noise Control Act of 1972

a) ~~Applicability 1)After the effective date of the federal standards contained in 40 CFR Part 202, this rule shall apply~~ This Part applies to motor carriers engaged in interstate commerce with respect to noise emissions regulated by ~~such~~ federal standards. Motor carrier operations ~~determined pursuant to 35 Ill. Adm. Code 900.104 to be governed by subject to this Part rule shall be~~ subject to this Part are excepted from ~~Section~~Sections 902.101, 902.102 and 902.121.

b) ~~2) This Part applies rule shall apply to motor carriers with respect only~~ applies to the operation of ~~those~~ motor vehicles ~~of such carriers which that~~ have a ~~gross vehicle weight rating~~ GVWR or gross combination weight rating in excess of 10,000 pounds, and only when ~~such those~~ motor vehicles are operated under the conditions specified ~~below in this Section.~~

c) ~~3) Except as provided in subsection (d) a subparagraph (4) of this paragraph (a), this Part rule shall apply.~~ this Part applies to the total sound produced by ~~such~~ motor vehicles when operating under the specified conditions, including the sound produced by auxiliary equipment mounted on ~~such the~~ motor vehicles.

d4) This ~~Part~~ ~~rule does~~ Part does not apply to auxiliary equipment ~~which~~ that is normally operated only when the transporting vehicle is stationary or is moving at a speed of 5 miles per hour or less. Examples of ~~such~~ this equipment include, but are not limited to, cranes, asphalt spreaders, ditch diggers, liquid or slurry pumps, air compressors, welders, and refuse compactors.

~~————~~ b) ~~Equipment Standards~~

1) ~~Visual exhaust system inspection~~

~~No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable unless the exhaust system of such vehicle is:~~

~~————~~ A) ~~Equipped with a muffler or other noise dissipative device;~~

~~————~~ B) ~~Free from defects which affect sound reduction; and~~

~~————~~ C) ~~Not equipped with any cutout, bypass or similar device.~~

~~————~~ 2) ~~Visual tire inspection~~

~~No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable on a tire or tires having a tread pattern which as originally manufactured, or as newly retreaded, is composed primarily of cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire. This subparagraph (2) shall not apply to any motor vehicle which is demonstrated by the motor carrier which operates it to be in compliance with the noise emission standard specified in paragraph (c) of this rule for operation on highways with speed limits of more than 35 miles per hour, if the demonstration is conducted at the highway speed limit in effect at the inspection location or, if speed is unlimited, the demonstration is conducted at a speed of 65 miles per hour.~~

~~————~~ c) ~~Standards for Highway Operation~~

~~No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable and which at any time or under any condition of highway grade, load, acceleration or deceleration generates a sound level in excess of 86 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of 35 miles per hour or less; or 90 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of more than 35 miles per hour.~~

~~————~~ d) ~~Standard for Operation under Stationary Test~~

~~No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable, and which is~~

~~equipped with an engine speed governor, which generates a sound level in excess of 88 dB(A) measured on an open site with fast meter response at 50 feet from the longitudinal centerline of the vehicle, when its engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged.~~

~~-----e) Additional Definitions Applicable Only to this Rule~~

~~1) Common carrier by motor vehicle: any person who holds himself out to the general public to engage in the transportation by motor vehicle in interstate or foreign commerce of passengers or property or any class or classes thereof for compensation, whether over regular or irregular routes.~~

~~2) Contract carrier by motor vehicle: any person who engages in transportation by motor vehicle of passengers or property in interstate or foreign commerce for compensation (other than transportation referred to in subparagraph (1) of this paragraph) under continuing contracts with one person or a limited number of persons either~~

~~A) for the furnishing of transportation services through the assignment of motor vehicles for a continuing period of time to the exclusive use of each person served or~~

~~B) for the furnishing of transportation services designed to meet the distinct need of each individual customer.~~

~~3) Gross combination weight rating: the value specified by the manufacturer as the loaded weight of a combination vehicle.~~

~~4) Gross vehicle weight rating: the value specified by the manufacturer as the loaded weight of a single vehicle.~~

~~5) Interstate commerce: the commerce between any place in a State and any place in another State or between places in the same State through another State, whether such commerce moves wholly by motor vehicle or partly by motor vehicle and partly by rail, express, water or air. This definition of "interstate commerce" for purposes of this rule is the same as the definition of "interstate commerce" in Section 203(a) of the Interstate Commerce Act (49 U.S.C. Section 303(a)).~~

~~6) Motor carrier: a common carrier by motor vehicle, a contract carrier by motor vehicle, or a private carrier of property by motor vehicle, as those terms are defined by paragraphs (14), (15), and (17) of Section 203(a) of the Interstate Commerce Act (49 U.S.C. 303(a)). The term "motor carrier" includes those entities which own and operate the subject motor vehicles, but not the drivers thereof, unless said drivers are independent truckers who both own and drive their own vehicles.~~

~~7) Open site: an area that is essentially free of large sound reflecting objects, such as barriers, walls, board fences, signboards, parked vehicles, bridges or buildings.~~

~~8) Private carrier of property by motor vehicle: any person not included in terms "common carrier by motor vehicle" or "contract carrier by motor vehicle", who transports in interstate or foreign commerce by motor vehicle property of which such person is the owner, lessee, or bailee, when such transportation is for sale, lease, rent or bailment, or in furtherance of any commercial enterprise.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.124 Horns and Other Warning Devices

The use of a horn and other warning device must comply with the requirements of 625 ILCS 5/12-601.

~~a) No person shall sound a horn when upon a highway, except when reasonably necessary to insure safe operation. No person shall sound any horn on any motor vehicle for an unreasonable period of time or in a manner so as to circumvent enforcement of the operational standards contained in this Subpart B.~~

~~b) No person shall sound any siren, whistle or bell of any motor vehicle except as provided in Ill. Rev. Stat. 1981, ch. 95 1/2, par. 12-601(b).~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 902.125 Tire Noise

Operation ~~of~~ ~~No person shall operate~~ of a motor vehicle in ~~such~~ a manner resulting ~~in~~ ~~as to cause or allow to be emitted~~ in squealing, screeching or other such noise being ~~emitted~~ omitted from the tires in contact with the ground is prohibited ~~because of rapid acceleration or excessive speed around corners or other such reason~~, except that noise resulting from emergency operation to avoid imminent danger ~~is~~ shall be exempt from this provision.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902

Section 902.140 Exceptions

a) The standards and limitations of this Part ~~902~~ do not apply to:

- 1) ~~Any~~ Any vehicle moved by human or animal powers;
- 2) ~~Any~~ Any vehicle moved by electrical power;

- 3) ~~Anyany~~Any vehicle used exclusively upon stationary rails or tracks;
- 4) ~~Anyany~~Any farm tractor;
- 5) ~~Anyany~~Any antique vehicle, if licensed under Section 3-804 of the Illinois Vehicle Code ~~([625 ILCS 5/3-804)Ill. Rev. Stat. 1981, ch. 95-1/2, par. 3-804, l;~~
- 6) ~~Anyany~~Any snowmobile, subject to 35 Ill. Adm. Code 905;
- 7) ~~Anyany~~Any special mobile equipment;
- 8) ~~Anyany~~Any vehicle while being used lawfully for racing competition or time racing events; and
- 9) ~~Anyany~~Any lawn care maintenance equipment.

b) Section ~~Sections~~ 902.102 ~~and 902.123(b)(2) does~~shall~~do~~ not apply to any person who can show that a tread pattern as described in ~~those rules that Section~~ was the result of wear and that the tire was not originally manufactured or newly retreaded with such a tread pattern.

c) The operational standards contained in this ~~Part Sections 902.120 through 902.123 inclusive do~~shall~~Part do~~ not apply to warning devices, ~~such as horns and sirens;~~ or to emergency equipment and vehicles described in 40 CFR 202.12(e), incorporated by reference at 35 Ill. Adm. Code 900.106. ~~such as fire engines, ambulances, police vans, and rescue vans, when respond to emergency calls; to snow plows when in operation; or to tactical military vehicles.~~

(Source: Amended at 42 Ill. Reg. , effective)

Section 902.141 Compliance Dates (Repealed)

- ~~a) Except as otherwise provided in this rule, any person subject to the standards and limitations of this Part shall comply with such standards and limitations on and after November 30, 1977.~~
- ~~b) Every owner or operator of a motor vehicle subject to Section 902.102 shall comply with such rule on and after May 31, 1978.~~
- ~~c) Every owner or operator of a motor vehicle subject to Section 902.120(b)(2) or 902.121(b)(2) shall comply with such rule on and after May 31, 1978.~~
- ~~d) Every motor carrier subject to Section 902.123 shall comply with such rule on and after May 31, 1977.~~

Document comparison by Workshare Compare on Monday, April 02, 2018
10:28:49 AM

Input:	
Document 1 ID	file:///I:\Input\Agency Rulemakings - Files Received\2018\March 2018\35-902-Agency-Proposed(iss14).docx
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Description	35-902-r01(issue 14)
Rendering set	Standard

Legend:	
<u>Insertion</u>	
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Format change	
Moved deletion	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	55
Deletions	130
Moved from	0
Moved to	0
Style change	0
Format changed	0
Total changes	185

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Sound Emission Standards and Limitations for Property Line-Noise Sources
- 2) Code Citation: 35 Ill. Adm. Code 901
- 3)

<u>Section Numbers</u> :	<u>Proposed Actions</u> :
901.101	Amendment
901.102	Amendment
901.103	Amendment
901.104	Amendment
901.105	Amendment
901.106	Amendment
901.107	Amendment
901.108	Repealed
901.109	Amendment
901.110	Repealed
901.111	Repealed
901.112	Repealed
901.114	Amendment
901.115	Amendment
901.116	Amendment
901.117	Amendment
901.120	Amendment
901.121	Amendment
901.122	Amendment
901.APPENDIX A	Repealed
- 4) Statutory Authority: Implementing and authorized by Sections 27 and 28 of the Illinois Environmental Protection Act [415 ILCS 5/27 and 28].
- 5) A Complete Description of the Subjects and Issues Involved: In Part 901, the Board clarifies language and removes obsolete provisions. The Board also repeals site-specific provisions for the facilities that, based on the information available to the Board, no longer operate.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Will this proposed rulemaking replace any emergency rule currently in effect? No

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APR - 4 2018

STATE OF ILLINOIS
Pollution Control Board

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 8) Does this rule contain an automatic repeal date? No
- 9) Does this rule contain incorporations by reference? No
- 10) Are there any other rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objective: The amendments streamline, update, and overhaul rules that are no longer current due to changing technology and the passage of time. The proposed changes involve updating definitions, references, and sound measurement procedures.
- 12) Time, Place, and Manner in which interested persons may comment on this rulemaking: The Board will accept written public comments on this proposal for a period of at least 45 days after the date of publication in the *Illinois Register*. Public comments must be filed with the Clerk of the Board. Public comments should reference Docket R18-19 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
JRTC
100 W. Randolph St., Suite 11-500
Chicago IL 60601

Public comments may also be filed electronically through the Clerk's Office On-Line (COOL) on the Board's website at www.ipcb.state.il.us.

Interested persons may request copies of the Board's opinion and order in R18-19 by calling the Clerk's office at 312/814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

- 13) Initial Regulatory Flexibility Analysis:
- A) Types of small businesses, small municipalities and not-for-profit corporations affected: None, amendments are not substantive.
- B) Reporting, bookkeeping or other procedures required for compliance: None
- C) Types of professional skills necessary for compliance: None
- 14) Regulatory Agenda on which this rulemaking was summarized: July 2017

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

The full text of the Proposed Amendments begins on the next page:

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE H: NOISE
3 CHAPTER I: POLLUTION CONTROL BOARD
4

5 PART 901
6 SOUND EMISSION STANDARDS AND LIMITATIONS
7 FOR PROPERTY-LINE-NOISE-SOURCES
8

9 Section

- 10 901.101 Classification of Land According to Use
11 901.102 Sound Emitted to Class A Land
12 901.103 Sound Emitted to Class B Land
13 901.104 Highly-Impulsive Sound
14 901.105 Impact Forging Operations
15 901.106 Prominent Discrete Tones
16 901.107 Exceptions
17 901.108 Compliance Dates for Part 901 (Repealed)
18 901.109 Highly-Impulsive Sound from Explosive Blasting
19 901.110 Amforge Operational Level (Repealed)
20 901.111 Modern Drop Forge Operational Level (Repealed)
21 901.112 Wyman-Gordon Operational Level (Repealed)
22 901.113 Wagner Casting Site-Specific Operational Level (Repealed)
23 901.114 Moline Forge Operational Level
24 901.115 Cornell Forge Hampshire Division Site-Specific Operational Level
25 901.116 Forgings and Stampings, Inc. Operational Level
26 901.117 Rockford Drop Forge Company Operational Level
27 901.118 Scot Forge Company – Franklin Park Division Operational Level
28 901.119 Clifford-Jacobs Operational Level
29 901.120 C.S. Norcross Operational Level
30 901.121 Vaughan & Bushnell Operational Level
31 901.122 Ameren-Elgin Facility Site-Specific Noise Emission Limitations

32
33 901.APPENDIX A Old Rule Numbers Referenced (Repealed)

34 901.APPENDIX B Land-Based Classification Standards and Corresponding 35 Ill. Adm.
35 Code 901 Land Classes
36

37 AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental
38 Protection Act [415 ILCS 5/25 and 27].
39

40 SOURCE: Originally filed as Part 2 of Chapter 8: Noise Pollution, effective August 10, 1973;
41 amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective
42 June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg.
43 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13646; amended at 7 Ill. Reg. 14519,

44 effective October 17, 1983; amended in R83-35 at 8 Ill. Reg. 18893, effective September 25,
 45 1984; amended in R83-33, 26, 29, 30 and R83-34 at 9 Ill. Reg. 1405, effective January 17, 1985;
 46 Section 901.105(f)(1), (2) and (3) recodified to Sections 901.110, 901.111 and 901.112 at 9 Ill.
 47 Reg. 7147; amended in R83-25, 31 and 32 at 9 Ill. Reg. 7149, effective May 7, 1985; amended in
 48 R83-7 at 11 Ill. Reg. 3136, effective January 28, 1987; amended in R04-11 at 28 Ill. Reg. 11910,
 49 effective July 30, 2004; amended in R03-9 at 30 Ill. Reg. 5533, effective March 10, 2006;
 50 amended in R06-11 at 31 Ill. Reg. 1984, effective January 12, 2007; amended in R14-22 at 39 Ill.
 51 Reg. 16264, effective December 2, 2015; amended in R18-19 at 42 Ill. Reg. _____, effective
 52 _____.

53

54 **Section 901.101 Classification of Land According to Use**

55

56 a) The land use classification system used for the purposes of applying numeric
 57 sound standards for this Part is based on the Land-Based Classification Standards
 58 (LBCS) (Jeer, Sanjay; 2001; Land-Based Classification Standards; online at
 59 Online, <https://www.planning.org/lbcs>; <http://www.planning.org/LBCS>. American
 60 Planning Association: Chicago, Illinois). The LBCS applicable to this Part is set
 61 forth in Appendix B.

62

63 b) Class A land includes all land used as specified by LBCS Codes 1000 through
 64 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222,
 65 6510 through 6530, 6568 through 6600.

66

67 c) Class B land includes all land used as specified by LBCS Codes 2100 through
 68 2336, 2500 through 2720, 3500 through 3600, 4220 through 4243, 5100 through
 69 5160, 5300 through 5390, 5400, 6147, 6210 through 6221, 6300 through 6320,
 70 6400 through 6430, 6560 through 6567, 6700 through 6830, 7100 through 7380.

71

72 d) Class C land includes all land used as specified by LBCS Codes 3100 through
 73 3440, 4120 through 4180, 4210 through 4212, 4300 through 4347, 7400 through
 74 7450, 8000 through 8500, and 9100 through 9520.

75

76 e) A parcel or tract of land used as specified by LBCS Code 9100, 9400, or 5500,
 77 when adjacent to Class B or C land, may be classified similarly by action of a
 78 municipal government having zoning jurisdiction over ~~that~~ such land.

79

80 ~~Despite~~ Notwithstanding any subsequent changes in actual land use, land so
 81 classified retains ~~the~~ such B or C classification until the municipal government
 82 removes the classification adopted by it.

82

83 (Source: Amended at 42 Ill. Reg. _____, effective _____)

84

85 **Section 901.102 Sound Emitted to Class A Land**

86

87 a) Except as elsewhere provided in this Part, ~~a~~ person ~~must not~~ shall cause or allow
 88 the emission of sound during daytime hours from any property-line-noise-source
 89 located on any Class A, B or C land to any receiving Class A land ~~that~~ which
 90 exceeds any allowable octave band sound pressure level specified in the following
 91 table, when measured at any point within ~~the~~ such receiving Class A land. ~~Sound,~~
 92 ~~provided, however, that no measurement of sound pressure levels must~~ shall be
 93 ~~measured at least~~ made less than 25 feet from ~~the~~ such property-line-noise-source.
 94

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	75	72	72
63	74	71	71
125	69	65	65
250	64	57	57
500	58	51	51
1000	52	45	45
2000	47	39	39
4000	43	34	34
8000	40	32	32

95 b) Except as provided elsewhere in this Part, ~~n~~ person ~~must not~~ shall cause or allow
 96 the emission of sound during nighttime hours from any property-line-noise-source
 97 located on any Class A, B or C land to any receiving Class A land ~~that~~ which
 98 exceeds any allowable octave band sound pressure level specified in the following
 99 table, when measured at any point within ~~the~~ such receiving Class A land. ~~Sound,~~
 100 ~~provided, however, that no measurement of sound pressure levels must~~ shall be
 101 ~~measured at least~~ made less than 25 feet from ~~the~~ such property-line-noise-source.
 102
 103

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	69	63	63
63	67	61	61
125	62	55	55
250	54	47	47
500	47	40	40
1000	41	35	35
2000	36	30	30
4000	32	25	25

8000 32 25 25

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(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.103 Sound Emitted to Class B Land

Except as provided elsewhere in this Part, ~~no~~ no person ~~must not~~ shall cause or allow the emission of sound from any property-line-noise-source located on any Class A, B or C land to any receiving Class B land ~~that~~ which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within ~~the~~ such receiving Class B land. ~~Sound, provided, however, that no measurement of sound pressure levels must~~ shall be ~~measured at least~~ made less than 25 feet from ~~the~~ such property-line-noise-source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class B Land from		
	Class C Land	Class B Land	Class A Land
31.5	80	79	72
63	79	78	71
125	74	72	65
250	69	64	57
500	63	58	51
1000	57	52	45
2000	52	46	39
4000	48	41	34
8000	45	39	32

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(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.104 Highly-Impulsive Sound

Except as provided elsewhere in this Part, ~~no~~ no person ~~must not~~ shall cause or allow the emission of highly-impulsive sound from any property-line-noise-source located on any Class A, B, or C land to any receiving Class A or B land ~~that~~ which exceeds the allowable A-weighted sound levels, measured with fast dynamic characteristic, specified in the following table when measured in ~~compliance~~ accordance with the procedure of 35 Ill. Adm. Code 900.103 at any point within ~~the~~ such receiving Class A or B land. ~~Sound, provided, however, that no measurement of sound pressure levels must~~ shall be ~~measured at least~~ made less than 25 feet from ~~the~~ such property-line-noise-source.

Classification of Land on which Property-Line- Noise Source: is Located	Allowable A-weighted Sound Levels in Decibels of Highly-Impulsive Sound Emitted to Receiving Class A or B Land		
	Class B Land	Class A Land	
		Daytime	Nighttime
Class A Land	47	47	37
Class B Land	54	47	37
Class C Land	58	53	43

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.105 Impact Forging Operations

a) For purposes of this Section, only the following are applicable:

- 1) Daytime hours means any continuous 16 hour period between 6:00 a.m. and 11:00 p.m. local time; ~~and~~
- 2) Nighttime hours means those 8 hours between 10:00 p.m. and 7:00 a.m. ~~that~~ which are not part of the 16 continuous daytime hours.
- 3) The reference time for L_{eq} , as defined in 35 Ill. Adm. Code 900.101 is one hour.
- 4) New Impacting Forging Operation is that property-line-noise-source comprised of impact forging operation on which construction began after September 1, 1982.
- 5) Existing Impact Forging Operation is that property-line-noise-source comprised of impact forging operations ~~that were~~ which are in existence on September 1, 1982; ~~;~~

b) Emission Limitations for New Impact Forging Operation:

~~A new~~ No impact forging operation ~~must not~~ shall cause or allow the emission of impulsive sound to any receiving Class A or B land ~~that~~ which exceeds the allowable sound levels specified in the following table when measured at any point within ~~thesueh~~ receiving land. ~~Sound pressure, provided however, that no measurement of sound levels must~~ shall be measured at least ~~made less than~~ 25 feet from ~~thesueh~~ new impact forging operation's property-line.

Allowable Highly-Impulsive Sound Levels (L_{eq}) in Decibels Emitted
to ~~F~~ Class A or B Land from New Impact Forging Operation

Class B Land	Class A Land	
	Daytime	Nighttime
59.5	53.5	48.5

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- c) Limitations for Existing Impact Forging Operation
~~Unless granted a permanent site specific allowable operational level pursuant to subsection (d), an~~ existing impact forging operation ~~must not~~ shall cause or allow the emission of highly-impulsive sound to any receiving Class A or B land ~~that~~ which exceeds the allowable sound levels specified in the following table, when measured at any point within ~~the~~ such receiving land. ~~Sound pressure;~~ provided however, that no measurement of sound levels ~~must~~ shall be measured at ~~least~~ made less than 25 feet from ~~the~~ such existing impact forging operation's property-line, ~~unless such forging operation is granted a permanent site specific allowable operational level pursuant to subsection (d).~~

Allowable Highly-Impulsive Sound Levels
(L_{eq}) in Decibels Emitted ~~to F~~ Class A or B
Land from Existing Impact Forging Operation

Class B Land	Class A Land	
	Daytime	Nighttime
64.5	58.5	53.5

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- d) Site Specific Allowable Operational Level for Existing Impact Forging Operation
- 1) An existing impact forging operation ~~that~~ which does not comply with subsection (c) may seek a permanent site specific allowable operational level from the Board. A permanent site specific level is ~~the~~ that level of operation allowed for a petitioner after review and approval by the Board and after implementation of abatement measures, if any, approved by the Board.
 - 2) Any existing impact forging operation seeking a permanent site specific operational level must submit with as its petition the following:
 - A) The location of the petitioner, a description of the surrounding community, and a map locating the petitioner within the community;
 - B) A description of the petitioner's operations, the number and size of

- 192 the petitioner's forging hammers, the current hours of hammer
193 operation, the approximate number of forgings manufactured
194 during each of the three prior calendar years and the approximate
195 number of hammer blows used to manufacture the forgings;
- 196
- 197 C) A description of any existing sound abatement measure;
- 198
- 199 D) The sound levels in excess of those permitted by subsection (c)
200 emitted by the petitioner into the community, in 5 decibel
201 increments measured in L_{eq} , shown on the map of the community;
- 202
- 203 E) The number of residences exposed to sound levels in excess of
204 those permitted by subsection (c);
- 205
- 206 F) A description of other significant sources of noise (mobile and
207 stationary) and their location shown on the map of the community;
- 208
- 209 G) A description of the proposed operational level and proposed
210 physical abatement measures, if any, a schedule for their
211 implementation and their costs;
- 212
- 213 H) The predicted improvement in community sound levels as a result
214 of implementation of the proposed abatement measures; and
- 215
- 216 I) A description of the economic and technical considerations
217 ~~that~~ which justify the permanent site specific allowable operational
218 level sought by the petitioner.
- 219
- 220 e) Land Use Classifications Preserved
221 The land use classifications in effect within a one-mile radius of an existing
222 impact forging operation on September 1, 1982 ~~remain~~remains the applicable land
223 use ~~classifications~~classification for enforcement of this Sectionthese rules against
224 an existing forging operation and ~~its~~any future modification thereof, regardless of
225 actual subsequent changes in land use; unless ~~those~~such actual changes would
226 impose less restrictive limitations on the impact forging operations.
- 227
- 228 f) Site-Specific Operational Levels
229 Each individual existing forging operation identified in Sections 901.110 through,
230 901.122~~111~~ and 901.112 must comply with either the site-specific operational
231 level defined in those Sections, or the allowable sound levels ~~in~~ otherwise
232 subject to Section 901.105(c).
- 233
- 234 (Source: Amended at 42 Ill. Reg. _____, effective _____)

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Section 901.106 Prominent Discrete Tones

- a) ~~A~~ No person ~~must not~~ shall cause or allow the emission of any prominent discrete tone from any property-line-noise-source located on any Class A, B or C land to any receiving Class A, B or C land, when measured at any point within the receiving land. One-third provided, however, that no measurement of one-third octave band sound pressure levels ~~must~~ shall be measured at least ~~made less than~~ 25 feet from the ~~such~~ property-line source.
- b) Subsection (a) does ~~This rule shall~~ not apply to prominent discrete tones having a one-third octave band sound pressure level 10 or more dB below the allowable octave band sound pressure level specified in Sections 901.102 through 901.104 for the octave band that ~~which~~ contains the ~~such~~ one-third octave band. In the application of this sub ~~section~~ section, the applicable numeric standard for sound emitted from any existing property-line-noise-source to receiving Class A land, for both daytime and nighttime operations, is found in Section 901.102(a).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.107 Exceptions

- a) Sections 901.102 through 901.106 do ~~inclusive~~ does not apply to sound emission ~~emitted~~ from land used as specified by LBCS Codes 1100, 6600 and 5500.
- b) Sections 901.102 through 901.106 do ~~inclusive~~ does not apply to sound emission ~~emitted~~ from emergency warning devices and unregulated safety relief valves.
- c) Sections 901.102 through 901.106 do ~~inclusive~~ does not apply to sound emission ~~emitted~~ from lawn care maintenance equipment and agricultural field machinery used during daytime hours. For the purposes of this sub ~~section~~ section, grain dryers operated off the farm are not considered agricultural field machinery.
- d) Sections 901.102 through 901.106 inclusive ~~do~~ not apply to sound emission ~~emitted~~ from equipment being used for construction.
- e) Section 901.102(b) does ~~do~~ not apply to sound emission ~~emitted~~ from existing property-line-noise-sources during nighttime hours. However, provided, however, that sound emission ~~emitted~~ from such ~~existing~~ property-line-noise-sources are governed ~~during nighttime hours~~ are subject to ~~by~~ the limits specified

278 in Section 901.102(a).

- 279
- 280 f) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to the operation of any
- 281 vehicle registered for highway use while ~~thesueh~~ vehicle is being operated within
- 282 any land used as specified by Section 901.101 ~~duringin the course of~~ ingress to or
- 283 egress from a highway.
- 284
- 285 g) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to sound
- 286 ~~emissionsemitted~~ from land used as specified by LBCS Codes 5130 and 5140
- 287 when used for automobile and motorcycle racing; and, any land used for contests,
- 288 rallies, time trials, test runs or similar operations of any self-propelled device, and
- 289 upon or by which any person is or may be transported or drawn, when such self-
- 290 propelled device is actually being used for sport or recreation and is actually
- 291 participating in an activity or event organized, regulated, and supervised under the
- 292 sponsorship and sanction of a club, organization or corporation having national or
- 293 statewide recognition. ~~However; provided, however, that~~ the exceptions
- 294 ~~ofgranted in~~ this subsection do not apply to any automobile and motorcycle race,
- 295 contest, rally, time trial, test run or similar operation of any self-propelled device
- 296 if such event is started between the hours of 10:30 p.m. to 7:00 a.m., local time
- 297 weekdays, or between the hours of 11:00 p.m. and 7:00 a.m., local time, weekend
- 298 days.
- 299
- 300 h) Section 901.104 ~~doesshall~~ not apply to impulsive sound emissions produced by
- 301 explosive blasting activities conducted on any Class C land other than land used
- 302 as specified by LBCS Codes 8300 and 8500. ~~However, explosive blasting; but~~
- 303 ~~sueh operations are subject to~~ shall be governed by Section 901.109.
- 304
- 305 i) ~~This Part 901~~ ~~doesshall~~ not apply to impulsive sound produced by explosive
- 306 blasting activities ~~that; which~~ are:
- 307
- 308 1) Conducted on any Class C land used as specified by LBCS Codes 8300
- 309 and 8500; and
- 310
- 311 2) Regulated by the Department of Natural Resources in
- 312 complianceaeoordanee with Section 6.5 of the Surface-Mined Land
- 313 Conservation and Reclamation Act [225 ILCS 715/6.5] and Section 3.13
- 314 of the Surface Coal Mining Land Conservation and Reclamation Act [225
- 315 ILCS 720/3.13].
- 316
- 317 j) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to sound
- 318 emissionsemitted from snowmobiles.
- 319

320 (Source: Amended at 42 Ill. Reg. _____, effective _____)

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Section 901.108 Compliance Dates for Part 901 (Repealed)

- a) ~~Except as provided in subsections (g), (i), and (j), every owner or operator of a new property line noise source must comply with the standards and limitations of this Part on and after August 10, 1973.~~
- b) ~~Except as otherwise provided in this rule, every owner or operator of an existing property line noise source must comply with the standards and limitations of this Part on and August 10, 1974.~~
- e) ~~Every owner or operator of an existing property line noise source who emits sound which exceeds any allowable octave band sound pressure level of Section 901.102 or 901.103 by 10 dB or more in any octave band with a center frequency of 31.5 Hertz, 63 Hertz or 125 Hertz must comply with the standards and limitations of this Part on and after February 10, 1975.~~
- d) ~~Except as provided in subsections (g) and (h), every owner or operator of an existing property line noise source required to comply with Section 901.104 must comply with the standards and limitations of this Part on and after February 10, 1975.~~
- e) ~~Every owner or operator of an existing property line noise source required to comply with Section 901.106 must comply with the standards and limitations of this Part on and after February 10, 1975.~~
- f) ~~Every owner or operator of Class C land now and hereafter used as specified by LBCS Code 4120 will have until August 10, 1976 to bring the sound from railroad car coupling in compliance with Section 901.104.~~
- g) ~~Existing impact forging operations as defined in Section 901.105 which do not seek permanent site specific allowable operational levels must comply with Section 901.105 by December 1, 1983. Those seeking permanent site specific allowable operational levels pursuant to Section 901.105(d) must comply as of the effective date of the site specific rule granted or denied.~~
- h) ~~Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 3310 must comply with the standards and limitations of this Part on August 10, 1975.~~
- i) ~~Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 5130 and 5140 when used for automobile and motorcycle racing must comply with the standards and limitations of this Part on February 10, 1976.~~

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(Source: Repealed at 42 Ill. Reg. _____, effective _____)

Section 901.109 Highly-Impulsive Sound From Explosive Blasting

- a) During the daytime hours that cover the period after sunrise and before sunset, ~~no~~ no person ~~must not~~ shall cause or allow any explosive blasting conducted on any Class C land, other than land used as specified by LBCS Codes 8300 and 8500, ~~so as to allow the sound emission~~ emission of sound to any receiving Class A or B land ~~that~~ which exceeds the allowable outdoor C-weighted sound levels, ~~measured with the slow dynamic characteristic,~~ specified in the following table, when measured with slow dynamic characteristic at any point within the, ~~of reasonable interference with the use of such~~ receiving Class A or B land.

Allowable Outdoor C-Weighted Sound Exposure Levels in Decibels of
Explosive Blasting Sounds Emitted to Receiving Class A or B Land
from Any Class C Land other than Land Used as Specified by LBCS
Code 8300 or 8500

Receiving Class A Land	Receiving Class B Land
107	112

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The allowable sound exposure level limits in the above table must be lowered by three decibels (3 dB) for each doubling of the number of blasts during the day or night.

- b) Compliance with outdoor peak sound pressure level limits in the following table ~~is~~ shall constitute prima facie level limits of this Section ~~rule~~ when measured on ~~the~~ such receiving Class A or B land.

Equivalent Maximum Sound Pressure Level
(Peak) Limits in Decibels

Lower Frequency Limit of Measuring System for Flat Response, a Variation from Linear Response of ± 3 dB (Hz)	Receiving Class A Land (dB)	Receiving Class B Land (dB)
≤ 2.0 but > 0.1	133	133

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388
389

- c) During the period defined by both the beginning of the nighttime hours (10:00 pm) or sunset, whichever occurs earlier, and the ending of the nighttime hours

390 (7:00 am) or sunrise, whichever occurs later, the allowable sound level limits in
391 subsections (a) and (b) must be reduced by 10 decibels except in emergency
392 situations where rain, lightning, other atmospheric conditions, or operator or
393 public safety requires unscheduled nighttime hour explosive blasting.
394

- 395 d) Persons causing or allowing explosive blasting to be conducted on any Class C
396 land other than land used as specified by LBCS Code 8300 or 8500 must notify
397 the local public of ~~thesuch~~ blasting prior to its occurrence, except when
398 emergency situations require unscheduled blasting, by publication of a blasting
399 schedule, identifying the work days or dates and time periods when explosives are
400 expected to be detonated, at least every three months in a newspaper of general
401 circulation in the locality of the blast site.
402

403 (Source: Amended at 42 Ill. Reg. _____, effective _____)
404

405 **Section 901.110 Amforge Operational Level (Repealed)**
406

407 Amforge Division of Rockwell International located at 119th Street, Chicago, Illinois must:
408

- 409 a) Operate only ten forging hammers at any one time;
410
411 b) Operation of its forging hammers is limited to the hours of 7:00 a.m. through
412 11:00 p.m., with occasional operations beginning at 6:00 a.m. and ending at
413 midnight, Monday through Saturdays; and
414
415 e) Install sound absorptive materials on each of the forging hammer structures as
416 each is routinely overhauled, but no later than January 1, 1987.
417

418 (Source: Repealed at 42 Ill. Reg. _____, effective _____)
419

420 **Section 901.111 Modern Drop Forge Operational Level (Repealed)**
421

422 Modern Drop Forge Company located at 139th Street and Western Avenue in Blue Island, Illinois
423 must:
424

- 425 a) Operate only twenty one forging hammers at any one time; and
426
427 b) Operate its forging hammers only during the hours of 6:00 a.m. through midnight,
428 Mondays through Fridays, and 6:30 a.m. until 7:30 p.m. on Saturdays.
429

430 (Source: Repealed at 42 Ill. Reg. _____, effective _____)
431

432 **Section 901.112 Wyman-Gordon Operational Level (Repealed)**

433
434 ~~Wyman-Gordon Company located at 147th Street and Wood Street, Harvey, Illinois shall:~~

- 435
436 a) ~~Operate only six forging hammer units, each consisting of two hammers, after~~
437 ~~January 1, 1984.~~
438
439 b) ~~Operate forging units in Buildings 6 and 7, located at the southern perimeter of~~
440 ~~the Wyman-Gordon Company's Harvey facility, to produce no more than 20% of~~
441 ~~the total annual hammer production at the Harvey facility;~~
442
443 e) ~~Operate forging units between the hours of 6:00 a.m. and midnight; limit forging~~
444 ~~operations on Saturdays and Sundays to no more than half a year's total; and limit~~
445 ~~forging operations during the hours of 6:00 a.m. and 7:00 a.m. and 11:00 p.m. and~~
446 ~~midnight to less than 2% of the Harvey's facility total annual hammer production;~~
447 ~~and~~
448
449 d) ~~Consolidate the two existing steel inventory yards at the one located north of~~
450 ~~Building 75 no later than January 1, 1984.~~

451
452 (Source: Repealed at 42 Ill. Reg. _____, effective _____)
453

454 **Section 901.114 Moline Forge Operational Level**

455
456 Moline Forge and future owners of the forging facility located at 4101 Fourth Avenue, Moline,
457 Illinois, must comply with the following site-specific operational level:

- 458
459 a) Operate no more than nine forging hammers at any one time; and
460
461 b) Operate its forging hammers only between the hours of 6:00 a.m. until 11:00 p.m.
462 Monday through Friday and from 6:00 a.m. until 3:30 p.m. on Saturdays.
463

464 (Source: Amended at 42 Ill. Reg. _____, effective _____)
465

466 **Section 901.115 Cornell Forge, Hampshire Division Site-Specific Operational Level**

467
468 Cornell Forge, Hampshire Division and future owners of the forging facility located at Walker
469 Road, Hampshire, Illinois, must comply with the following site-specific operational level:

- 470
471 a) Operate no more than seven forging hammers at any one time; and
472
473 b) Operate its forging hammers only on Monday through Saturday between the
474 hours of 7:00 a.m. to 3:30 p.m. with an additional shift that may run from either
475 3:30 p.m. to 12:00 p.m. or from 10:30 p.m. to 7:00 a.m.

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(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.116 Forgings and Stampings, Inc. Operational Level

Forgings and Stampings, Inc. and future owners of the forging facility located at 1025 23rd Avenue, Rockford, Illinois, must~~shall~~ comply with the following site-specific operational level:

- a) Operate no more than six forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. and 6:00 p.m. Monday through Friday and 6:00 a.m. and 2:00 p.m. on Saturday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.117 Rockford Drop Forge Company Operational Level

Rockford Drop Forge Company and future owners of the forging facility located at 2031 Ninth Street, Rockford, Illinois, must~~shall~~ comply with the following site-specific operational level:

- a) Operate no more than 12~~twelve~~ forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. and 10:00 p.m. Monday through Saturday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.120 C.S. Norcross Operational Level

C.S. Norcross & Sons Company and future owners of the forging facility located at the intersection of Davis and Dean Streets, Bushnell, Illinois, must~~shall~~ comply with the following site-specific operational level:

- a) Operate no more than 12~~twelve~~ forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 7:00 a.m. and 1:00 a.m. Monday through Saturday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.121 Vaughan & Bushnell Operational Level

Vaughan & Bushnell Manufacturing Company and the future owners of the forging facility

519 located at the intersection of Davis and Main Streets, Bushnell, Illinois, must comply with the
 520 following site-specific operational level:

- 521
- 522 a) Operate no more than 10~~ten~~ hammers at any one time; and
 - 523
 - 524 b) Operate its forging hammers up to~~Vaughan & Bushnell may operate~~ 24 hours per
 525 day, Monday through Sunday.

526
 527 (Source: Amended at 42 Ill. Reg. _____, effective _____)
 528

529 **Section 901.122 Ameren-Elgin Facility Site-Specific Noise Emission Limitations**

530
 531 The Combustion Turbine Power Generation Facility located at 1559 Gifford Road in Elgin,
 532 Illinois ~~must~~shall not cause or allow the emission of sound from any property-line-noise-source
 533 located on that property ~~that~~which exceeds any allowable octave band sound pressure level
 534 specified in the following table, when measured at any point within the receiving Class A or
 535 Class B land.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A or Class B Land from Ameren Elgin Facility	
	Class A Land	Class B Land
31.5	80	80
63	74	79
125	69	74
250	64	69
500	58	63
1000	58	58
2000	58	58
4000	50	50
8000	40	45

536
 537 (Source: Amended at 42 Ill. Reg. _____, effective _____)
 538

539
540
541
542
543
544

Section 901.APPENDIX A Old Rule Numbers Referenced (Repealed)

The following table is provided to aid in referencing old Board rule numbers to section numbers pursuant to codification.

Old Part 2 of chapter 8	35 Adm. Code Part 901
Rule 201	Section 901.101
Rule 202	Section 901.102(a)
Rule 203	Section 901.102(b)
Rule 204	Section 901.103
Rule 205	Repealed 901.101
Rule 205 (was old 206)	Section 901.104
Rule 206 (new rule)	Section 901.105
Rule 207	Section 901.106
Rule 208	Section 901.107
Rule 209	Section 901.108
Rule 2010	Section 901.109
Rule 201	Section 901.101
Rule 201	Section 901.101
Rule 201	Section 901.101
Added in Codification	Appendix A
Unnumbered Appendix 2 Chapter 8, Part 2	Appendix B

545 (Source: Repealed at 42 Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: POLLUTION CONTROL BOARD

PART 901
SOUND EMISSION STANDARDS AND LIMITATIONS
FOR PROPERTY LINE-NOISE-SOURCES

Section

- 901.101 Classification of Land According to Use
 - 901.102 Sound Emitted to Class A Land
 - 901.103 Sound Emitted to Class B Land
 - 901.104 Highly - Impulsive Sound
 - 901.105 Impact Forging Operations
 - 901.106 Prominent Discrete Tones
 - 901.107 Exceptions
 - 901.108 Compliance Dates for Part 901 (Repealed)
 - 901.109 Highly - Impulsive Sound from Explosive Blasting
 - 901.110 Amforge Operational Level (Repealed)
 - 901.111 Modern Drop Forge Operational Level (Repealed)
 - 901.112 Wyman-Gordon Operational Level (Repealed)
 - 901.113 Wagner Casting Site-Specific Operational Level (Repealed)
 - 901.114 Moline Forge Operational Level
 - 901.115 Cornell Forge Hampshire Division Site-Specific Operational Level
 - 901.116 Forgings and Stampings, Inc. Operational Level
 - 901.117 Rockford Drop Forge Company Operational Level
 - 901.118 Scot Forge Company - Franklin Park Division Operational Level
 - 901.119 Clifford-Jacobs Operational Level
 - 901.120 C.S. Norcross Operational Level
 - 901.121 Vaughan & Bushnell Operational Level
 - 901.122 ~~Ameren~~-Elgin Facility Site-Specific Noise Emission Limitations
- 901.APPENDIX A Old Rule Numbers Referenced (Repealed)
- 901.APPENDIX B Land-Based Classification Standards and Corresponding
35 Ill. Adm. Code 901 Land Classes

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Originally filed as Part 2 of Chapter 8: Noise Pollution, effective August 10, 1973; amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg. 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13646; amended at 7 Ill. Reg. 14519, effective October 17, 1983; amended in R83-35 at 8 Ill. Reg. 18893, effective September 25, 1984; amended in R83-33, 26, 29, 30 and R83-34 at 9 Ill. Reg. 1405, effective January 17, 1985; Section 901.105(f)(1), (2) and (3) recodified to

Sections 901.110, 901.111 and 901.112 at 9 Ill. Reg. 7147; amended in R83-25, 31 and 32 at 9 Ill. Reg. 7149, effective May 7, 1985; amended in R83-7 at 11 Ill. Reg. 3136, effective January 28, 1987; amended in R04-~~11,11~~ at 28 Ill. Reg. 11910, effective July 30, 2004; amended in R03-9 at 30 Ill. Reg. 5533, effective March 10, 2006; amended in R06-11 at 31 Ill. Reg. 1984, effective January 12, 2007; amended in R14-22 at 39 Ill. Reg. 16264, effective December ~~7,2~~ 2015; amended in R18-19 at 42 Ill. Reg. ~~---~~, effective ~~-----~~.

Section 901.101 Classification of Land According to Use

a) The land use classification system used for the purposes of applying numeric sound standards for this Part is based on the Land-Based Classification Standards (LBCS) (Jeer, Sanjay. ~~2001.---~~; 2001; Land-Based Classification Standards.---Online,; online at https://www.planning.org/lbcs-http://www.planning.org/LBCS.; American Planning Association: Chicago, Illinois). The LBCS applicable to this Part is ~~set forth~~ in Appendix B.

b) Class A land includes all land used as specified by LBCS Codes 1000 through 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222, 6510 through 6530, 6568 through 6600.

c) Class B land includes all land used as specified by LBCS Codes 2100 through 2336, 2500 through 2720, 3500 through 3600, 4220 through 4243, 5100 through 5160, 5300 through 5390, 5400, 6147, 6210 through 6221, 6300 through 6320, 6400 through 6430, 6560 through 6567, 6700 through 6830, 7100 through 7380.

d) Class C land includes all land used as specified by LBCS Codes 3100 through 3440, 4120 through 4180, 4210 through 4212, 4300 through 4347, 7400 through 7450, 8000 through 8500, and 9100 through 9520.

e) A parcel or tract of land used as specified by LBCS Code 9100, 9400, or ~~5500~~5500, when adjacent to Class B or C land, may be classified similarly by action of a municipal government having zoning jurisdiction over ~~such that~~ land. ~~Notwithstanding Despite~~Despite any subsequent changes in actual land use, land so classified retains ~~such the~~ B or C classification until the municipal government removes the classification adopted by it.

(Source: Amended at 42 Ill. Reg. ~~---~~, effective ~~-----~~)

Section 901.102 Sound Emitted to Class A Land

a) Except as elsewhere provided in this Part, ~~anoa~~ person must not ~~shall~~ cause or allow the emission of sound during daytime hours from any property-line-noise-source located on any Class A, B or C land to any receiving Class A land that ~~which~~ exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within ~~thesuch the~~ receiving Class A land~~7~~. Sound ~~provided,---~~

~~however, that no measurement of sound~~ pressure levels ~~mustshall~~must be measured at ~~leastmade less than~~least 25 feet from ~~thesuehthe~~ property-line-noise-source.

Octave Band Center Frequency (Hertz) Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from Class C Land Class B Land Class A
Land 31.57572726374717112569656525064575750058515110005245452000473939400
04334348000403232

b) Except as provided elsewhere in this Part, ~~no a~~ person must ~~notshall~~not cause or allow the emission of sound during nighttime hours from any property-line-noise-source located on any Class A, B or C land to any receiving Class A land ~~thatwhich~~that exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within ~~thesuehthe~~ receiving Class A land. ~~Sound, provided, however, that no measurement of sound~~ pressure levels ~~mustshall~~must be measured at ~~leastmade less than~~least 25 feet from ~~thesuehthe~~ property-line-noise-source.

Octave Band Center Frequency (Hertz) Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from Class C Land Class B Land Class A
Land 31.56963636367616112562555525054474750047404010004135352000363030400
03225258000322525

(Source: Amended at 42 Ill. Reg. , effective

Section 901.103 Sound Emitted to Class B Land

Except as provided elsewhere in this Part, ~~ane a~~ person must ~~notshall~~not cause or allow the emission of sound from any property-line-noise-source located on any Class A, B or C land to any receiving Class B land ~~thatwhich~~that exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within ~~thesuehthe~~ receiving Class B land. ~~Sound, provided, however, that no measurement of sound~~ pressure levels ~~mustshall~~must be measured at ~~leastmade less than~~least 25 feet from the ~~sueh-~~ property-line-noise-source.

Octave Band Center Frequency (Hertz) Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class B Land ~~from Class from Class~~ C Land Class B Land Class A
Land 31.58079726379787112574726525069645750063585110005752452000524639400
04841348000453932

(Source: Amended at 42 Ill. Reg. , effective

Section 901.104 Highly-Impulsive Sound

Except as provided elsewhere in this Part, ~~ane a~~ person must ~~notshall~~not cause or allow the emission of highly-impulsive sound from any property-line-noise-source located on any Class A, B, or C land to any

receiving Class A or B land ~~that~~which~~that~~ exceeds the allowable A-weighted sound levels, measured with fast dynamic characteristic, specified in the following table when measured in ~~accordance~~ compliance with the procedure of 35 Ill. Adm. Code 900.103 at any point within ~~the~~such~~the~~ receiving Class A or B land. Sound, ~~provided, however, that no measurement of sound~~ pressure levels ~~must~~shall~~must~~ be measured at ~~least~~made less than~~least~~ 25 feet from ~~the~~such~~the~~ property-line-noise-source.

Classification of Land on which Property-Line- Noise- Source: is
Located Allowable A-weighted Sound Levels in Decibels of Highly-Impulsive Sound Emitted to Receiving Class A or B Land
Class B Land Class A Land
Daytime Nighttime Class A Land 474737 Class B Land 544737 Class C Land 585343

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.105 Impact Forging Operations

a) For purposes of this Section, only the following are applicable:

- 1) Daytime hours means any continuous 16- hour period between 6:00 a.m. and 11:00 p.m. local time; ~~and~~ and
- 2) Nighttime hours means those 8 hours between 10:00 p.m. and 7:00 a.m. ~~which~~that are not part of the 16 continuous daytime hours.
- 3) The reference time for Leq, as defined in 35 Ill. Adm. Code 900.101 is one hour.
- 4) New Impacting Forging Operation is that property-line-noise-source comprised of impact forging operation on which construction began after September 1, 1982.
- 5) Existing Impact Forging Operation is that property-line-noise-source comprised of impact forging operations ~~which are~~that were in existence on September 1, ~~1982, 1982.~~ 1982.

b) Emission Limitations for New Impact Forging Operation. ~~No~~
A new impact forging operation must ~~not~~shall not cause or allow the emission of impulsive sound to any receiving Class A or B land ~~that~~which~~that~~ exceeds the allowable sound levels specified in the following table when measured at any point within ~~the~~such~~the~~ receiving land. Sound, ~~provided, however, that no measurement of sound~~ pressure levels ~~must~~shall~~must~~ be measured at ~~least~~made less than~~least~~ 25 feet from ~~the~~such~~the~~ new impact forging operation's property-line.

Allowable Highly- Impulsive Sound Levels (Leq) in Decibels Emitted ~~to~~ to Class A or B Land from New Impact Forging ~~Operation~~Class~~Operation~~Class B
Land Class A ~~Land~~Daytime~~Nighttime~~LandDaytime~~Nighttime~~ 59.5 53.5 48.5

c) Limitations for Existing Impact Forging Operation

Unless granted a permanent site specific allowable operational level pursuant to subsection (d), ~~an~~Nean existing impact forging operation must ~~not~~shallnot cause or allow the emission of highly-impulsive sound to any receiving Class A or B land ~~that~~which~~that~~ exceeds the allowable sound levels specified in the following table, when measured at any point within ~~the~~such~~the~~ receiving land. Sound, ~~provided, however, that no measurement of sound~~ pressure levels ~~must~~shallmust be measured at ~~least~~made less thanleast 25 feet from ~~the~~such~~the~~ existing impact forging operation's property-line., ~~unless such forging operation is granted a permanent site specific allowable operational level pursuant to subsection (d).~~

Allowable Highly- Impulsive Sound Levels (Leq) in Decibels Emitted ~~To~~ to
Class A or B Land from Existing Impact Forging
~~Operation~~ClassOperationClass B Land Class A
LandDaytimeNighttimeLandDaytimeNighttime 64.5 58.5 53.5

d) Site Specific Allowable Operational Level for Existing Impact Forging Operation

1) An existing impact forging operation ~~that~~which~~that~~ does not comply with subsection (c) may seek a permanent site specific allowable operational level from the Board. A permanent site specific level is ~~the~~that~~the~~ level of operation allowed for a petitioner after review and approval by the Board and after implementation of abatement measures, if any, approved by the Board.

2) Any existing impact forging operation seeking a permanent site specific operational level must submit ~~with~~aswith its petition the following:

A) The location of the petitioner, a description of the surrounding community, and a map locating the petitioner within the community;

B) A description of the petitioner's operations, the number and size of the petitioner's forging hammers, the current hours of hammer operation, the approximate number of forgings manufactured during each of the three prior calendar years and the approximate number of hammer blows used to manufacture the forgings;-

C) A description of any existing sound abatement measure;-

D) The sound levels in excess of those permitted by subsection (c) emitted by the petitioner into the community, in 5 decibel increments measured in Leq, shown on the map of the community;-

E) The number of residences exposed to sound levels in excess of those permitted by subsection (c);

F) A description of other significant sources of noise (mobile and stationary) and their location shown on the map of the community;

G) A description of the proposed operational level and proposed physical abatement measures, if any, a schedule for their implementation and their costs;

H) The predicted improvement in community sound levels as a result of implementation of the proposed abatement measures; and

I) A description of the economic and technical considerations ~~that which that~~ justify the permanent site specific allowable operational level sought by the petitioner.

e) Land Use Classifications Preserved

The land use classifications in effect within a one-mile radius of an existing impact forging operation on September 1, 1982 ~~remainremains~~ remain the applicable land use ~~classificationsclassification~~ classifications for enforcement of ~~these rules~~ this Section against an existing forging operation and ~~itsanyits~~ future modification ~~thereof~~, regardless of actual subsequent changes in land use; unless ~~such~~ those actual changes would impose less restrictive limitations on the impact forging operations.

f) Site-Specific Operational Levels

Each individual existing forging operation identified in Sections 901.110 through, ~~901.12211 and 901.112~~ 901.122 must comply with either the site-specific operational level defined in those ~~sections, or is otherwise subject to~~ the Sections or the allowable sound levels in Section 901.105(c).

(Source: Amended at 42 Ill. Reg. , effective)

Section 901.106 Prominent Discrete Tones

a) ~~ANeA~~ person must ~~notshallnot~~ cause or allow the emission of any prominent discrete tone from any property-line-noise-source located on any Class A, B or C land to any receiving Class A, B or C land, when measured at any point within the receiving land. One ~~third provided, however, that no measurement of one~~ third octave band sound pressure levels ~~mustshallmust~~ be measured at least ~~made less than~~ 25 feet from the ~~such~~ property-line source.

b) Subsection (a) ~~This rule does~~ shall does not apply to prominent discrete tones having a one-third octave band sound pressure level 10 or more dB below the allowable octave band sound pressure level specified in Sections 901.102 through 901.104 for the octave band ~~that which that~~ contains ~~thesuehthe~~ the one-third octave band. In the application of this ~~sub-section~~ subsection, the applicable numeric standard for sound emitted from any existing property-line-noise-source to receiving Class A land, for both daytime and nighttime operations, is found in Section 901.102(a).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.107 Exceptions

- a) Sections 901.102 through 901.106 ~~do inclusive~~ do not apply to sound ~~emissionsemitted~~ emissions from land used as specified by LBCS Codes 1100, 6600 and 5500.
- b) Sections 901.102 through 901.106 ~~do inclusive~~ do not apply to sound ~~emissionsemitted~~ emissions from emergency warning devices and unregulated safety relief valves.
- c) Sections 901.102 through 901.106 ~~do inclusive~~ do not apply to sound ~~emissionsemitted~~ emissions from lawn care maintenance equipment and agricultural field machinery used during daytime hours. For the purposes of this ~~sub-section~~ subsection, grain dryers operated off the farm are not considered agricultural field machinery.
- d) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to sound ~~emissionsemitted~~ emissions from equipment being used for construction.
- e) Section 901.102(b) does not apply to sound ~~emissionsemitted~~ emissions from existing property-line-noise-sources during nighttime hours. However, ~~provided, however, that~~ sound ~~emissionsemitted~~ emissions from ~~such~~ existing property-line-noise-sources ~~are governed~~ during nighttime hours are subject ~~to by~~ to the limits specified in Section 901.102(a).
- f) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to the operation of any vehicle registered for highway use while ~~thesuekthe~~ the vehicle is being operated within any land used as specified by Section 901.101 ~~in the course of~~ during ingress to or egress from a highway.
- g) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to sound ~~emissionsemitted~~ emissions from ~~+~~ land used as specified by LBCS Codes 5130 and 5140 when used for automobile and motorcycle racing; and, any land used for contests, rallies, time trials, test runs or similar operations of any self-propelled device, and upon or by which any person is or may be transported or drawn, when such self-propelled device is actually being used for sport or recreation and is actually participating in an activity or event organized, regulated, and supervised under the sponsorship and sanction of a club, organization or corporation having national or statewide recognition. However, ~~+~~ ~~provided, however, that~~ the exceptions ~~granted in~~ of this subsection do not apply to any automobile and motorcycle race, contest, rally, time trial, test run or similar operation of any self-propelled device if such event is started between the hours of 10:30 p.m. to 7:00 a.m., local time weekdays, or between the hours of 11:00 p.m. and 7:00 a.m., local time, weekend days.

h) Section 901.104 ~~does~~shall~~does~~ not apply to impulsive sound emissions produced by explosive blasting activities conducted on any Class C land other than ~~the~~ land used as specified by LBCS Codes 8300 and ~~8500.~~8500. However, explosive ~~blasting~~but such blasting operations are subject to ~~shall be governed by~~ Section 901.109.

i) This Part ~~901 does~~shall~~does~~ not apply to impulsive sound produced by explosive blasting activities, ~~which~~ that are:

1) Conducted on any Class C land used as specified by LBCS Codes 8300 and 8500; and

2) Regulated by the Department of Natural Resources in compliance with Section 6.5 of the Surface-Mined Land Conservation and Reclamation Act [225 ILCS 715/6.5] and Section 3.13 of the Surface Coal Mining Land Conservation and Reclamation Act [225 ILCS 720/3.13].

j) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to sound emissions ~~emitted~~ from snowmobiles.

(Source: Amended at 42 Ill. Reg. , effective)

Section 901.108 Compliance Dates for Part 901 (Repealed)

~~a) Except as provided in subsections (g), (i), and (j), every owner or operator of a new property line noise source must comply with the standards and limitations of this Part on and after August 10, 1973.~~

~~b) Except as otherwise provided in this rule, every owner or operator of an existing property line noise source must comply with the standards and limitations of this Part on and after August 10, 1974.~~

~~e) Every owner or operator of an existing property line noise source who emits sound which exceeds any allowable octave band sound pressure level of Section 901.102 or 901.103 by 10 dB or more in any octave band with a center frequency of 31.5 Hertz, 63 Hertz or 125 Hertz must comply with the standards and limitations of this Part on and after February 10, 1975.~~

~~d) Except as provided in subsections (g) and (h), every owner or operator of an existing property line noise source required to comply with Section 901.104 must comply with the standards and limitations of this Part on and after February 10, 1975.~~

~~e) Every owner or operator of an existing property line noise source required to comply with Section 901.106 must comply with the standards and limitations of this Part on and after February 10, 1975.~~

~~f) Every owner or operator of Class C land now and hereafter used as specified by LBCS Code 4120 will have until August 10, 1976 to bring the sound from railroad car coupling in compliance with Section 901.104.~~

~~g) Existing impact forging operations as defined in Section 901.105 which do not seek permanent site specific allowable operational levels must comply with Section 901.105 by December 1, 1983. Those seeking permanent site specific allowable operational levels pursuant to Section 901.105(d) must comply as of the effective date of the site specific rule granted or denied.~~

~~h) Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 3310 must comply with the standards and limitations of this Part on August 10, 1975.~~

~~i) Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 5130 and 5140 when used for automobile and motorcycle racing must comply with the standards and limitations of this Part on February 10, 1976.~~

(Source: Repealed at 42 Ill. Reg. , effective)

Section 901.109 Highly-Impulsive Sound From Explosive Blasting

a) During the daytime hours that cover the period after sunrise and before sunset, ~~ane~~ a person must ~~not~~shall not cause or allow any explosive blasting conducted on any Class C land, other than land used as specified by LBCS Codes 8300 and 8500, ~~so as to allow the sound emission~~emission of sound emissions to any receiving Class A or B land ~~that which that~~ exceeds the allowable outdoor C-weighted sound levels, ~~measured with the slow dynamic characteristic,~~ specified in the following table, when measured with slow dynamic characteristic at any point, ~~of reasonable interference with the use of~~ within ~~the such the~~ receiving Class A or B land.

Allowable Outdoor C-Weighted Sound Exposure Levels in Decibels of Explosive Blasting Sounds Emitted to Receiving Class A or B Land from Any Class C Land other than Land Used as Specified by LBCS Code 8300 or 8500

	Receiving Class A Land	Receiving Class B Land
107112		

The allowable sound exposure level limits in the above table must be lowered by three decibels (3 dB) for each doubling of the number of blasts during the day or night.

b) Compliance with outdoor peak sound pressure level limits in the following table ~~shall constitute~~ is prima facie level limits of this ~~rule~~Section when measured on ~~the such the~~ receiving Class A or B land.

Equivalent Maximum Sound Pressure Level

(Peak) Limits in ~~Decibels~~Lower Decibels Lower Frequency Limit of Measuring System for Flat Response, a Variation from Linear Response of ~~+ or -~~ ± 3 dB (Hz) Receiving Class A Land (dB) Receiving Class B Land (dB) ~~≤~~ 2.0 but > 0.1133133

c) During the period defined by both the beginning of the nighttime hours (10:00 pm) or sunset, whichever occurs earlier, and the ending of the nighttime hours (7:00 am) or sunrise, whichever occurs later, the allowable sound level limits in subsections (a) and (b) must be reduced by 10 decibels except in emergency situations where rain, lightning, other atmospheric conditions, or operator or public safety requires unscheduled nighttime hour explosive blasting.

d) Persons causing or allowing explosive blasting to be conducted on any Class C land other than land used as specified by LBCS Code 8300 or 8500 must notify the local public of ~~thesue~~the blasting prior to its occurrence, except when emergency situations require unscheduled blasting, by publication of a blasting schedule, identifying the work days or dates and time periods when explosives are expected to be detonated, at least every three months in a newspaper of general circulation in the locality of the blast site.

(Source: Amended at 42 Ill. Reg. , effective)

Section 901.110 Amforge Operational Level (Repealed)

~~Amforge Division of Rockwell International located at 119th Street, Chicago, Illinois must:~~

~~a) Operate only ten forging hammers at any one time;~~

~~b) Operation of its forging hammers is limited to the hours of 7:00 a.m. through 11:00 p.m., with occasional operations beginning at 6:00 a.m. and ending at midnight, Monday through Saturdays, and~~

~~e) Install sound absorptive materials on each of the forging hammer structures as each is routinely overhauled, but no later than January 1, 1987.~~

(Source: Repealed at 42 Ill. Reg. , effective)

Section 901.111 Modern Drop Forge Operational Level (Repealed)

~~Modern Drop Forge Company located at 139th Street and Western Avenue in Blue Island, Illinois must:~~

~~a) Operate only twenty one forging hammers at any one time, and~~

~~b) Operate its forging hammers only during the hours of 6:00 a.m. through midnight, Mondays through Fridays, and 6:30 a.m. until 7:30 p.m. on Saturdays.~~

(Source: Repealed at 42 Ill. Reg. , effective)

Section 901.112 Wyman-Gordon Operational Level (Repealed)

~~Wyman-Gordon Company located at 147th Street and Wood Street, Harvey, Illinois shall:~~

- ~~a) Operate only six forging hammer units, each consisting of two hammers, after January 1, 1984.~~
- ~~b) Operate forging units in Buildings 6 and 7, located at the southern perimeter of the Wyman-Gordon Company's Harvey facility, to produce no more than 20% of the total annual hammer production at the Harvey facility,~~
- ~~c) Operate forging units between the hours of 6:00 a.m. and midnight; limit forging operations on Saturdays and Sundays to no more than half a year's total; and limit forging operations during the hours of 6:00 a.m. and 7:00 a.m. and 11:00 p.m. and midnight to less than 2% of the Harvey's facility total annual hammer production; and~~
- ~~d) Consolidate the two existing steel inventory yards at the one located north of Building 75 no later than January 1, 1984.~~

(Source: Repealed at 42 Ill. Reg. _____, effective _____)

Section 901.114 Moline Forge Operational Level

Moline Forge and future owners of the forging facility located at 4101 Fourth Avenue, Moline, Illinois, ~~shall~~must comply with the following site-specific operational level:

- a) Operate no more than nine forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. until 11:00 p.m. Monday through Friday and from 6:00 a.m. until 3:30 p.m. on Saturdays.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.115 Cornell Forge, Hampshire Division Site-Specific Operational Level

Cornell Forge, Hampshire Division and future owners of the forging facility located at Walker Road, Hampshire, Illinois, ~~shall~~must comply with the following site-specific operational level:

- a) Operate no more than seven forging hammers at any one time; and

b) Operate its forging hammers only on Monday through Saturday between the hours of 7:00 a.m. to 3:30 p.m. with an additional shift that may run from either 3:30 p.m. to 12:00 p.m. or from 10:30 p.m. to 7:00 a.m.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.116 Forgings and Stampings, Inc. Operational Level

Forgings and Stampings, Inc. and future owners of the forging facility located at 1025 23rd Avenue, Rockford, Illinois, ~~shall~~must comply with the following site-specific operational level:

- a) Operate no more than six forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. and 6:00 p.m. Monday through Friday and 6:00 a.m. and 2:00 p.m. on Saturday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.117 Rockford Drop Forge Company Operational Level

Rockford Drop Forge Company and future owners of the forging facility located at 2031 Ninth Street, Rockford, Illinois, ~~shall~~must comply with the following site-specific operational level:

- a) Operate no more than ~~twelve~~12 forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. and 10:00 p.m. Monday through Saturday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.120 C.S. Norcross Operational Level

C.S. Norcross & Sons Company and future owners of the forging facility located at the intersection of Davis and Dean Streets, Bushnell, Illinois, ~~shall~~must comply with the following site-specific operational level:

- a) Operate no more than ~~twelve~~12 forging hammers at any one time; and
- b) Operate its forging hammers only between the hours of 7:00 a.m. and 1:00 a.m. Monday through Saturday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.121 Vaughan & Bushnell Operational Level

Vaughan & Bushnell Manufacturing Company and the future owners of the forging facility located at the intersection of Davis and Main Streets, Bushnell, Illinois, must comply with the following site-specific operational level:

- a) Operate no more than ~~ten~~10 hammers at any one time; and
- b) ~~Operate Vaughan & Bushnell may operate~~Operate its forging hammers up to 24 hours per day, Monday through Sunday.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 901.122 ~~Ameren~~-Elgin Facility Site-Specific Noise Emission Limitations

The Combustion Turbine Power Generation Facility located at 1559 Gifford Road in Elgin, Illinois ~~shall~~must not cause or allow the emission of sound from any property-line-noise ~~source~~ source located on that property ~~which~~that exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within the receiving Class A or Class B land.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A or Class B Land from Ameren Elgin Facility	
	Class A Land	Class B Land
31.5	58	50
37.5	58	50
45	58	50
56.2	58	50
70.8	58	50
89.1	58	50
112.2	58	50
141.3	58	50
177.8	58	50
225	58	50
285	58	50
360	58	50
450	58	50
562	58	50
708	58	50
891	58	50
1122	58	50
1413	58	50
1778	58	50
2250	58	50
2850	58	50
3600	58	50
4500	58	50
5620	58	50
7080	58	50
8910	58	50
11220	58	50
14130	58	50
17780	58	50
22500	58	50
28500	58	50
36000	58	50
45000	58	50
56200	58	50
70800	58	50
89100	58	50
112200	58	50
141300	58	50
177800	58	50
225000	58	50
285000	58	50
360000	58	50
450000	58	50
562000	58	50
708000	58	50
891000	58	50
1122000	58	50
1413000	58	50
1778000	58	50
2250000	58	50
2850000	58	50
3600000	58	50
4500000	58	50
5620000	58	50
7080000	58	50
8910000	58	50
11220000	58	50
14130000	58	50
17780000	58	50
22500000	58	50
28500000	58	50
36000000	58	50
45000000	58	50
56200000	58	50
70800000	58	50
89100000	58	50
112200000	58	50
141300000	58	50
177800000	58	50
225000000	58	50
285000000	58	50
360000000	58	50
450000000	58	50
562000000	58	50
708000000	58	50
891000000	58	50
1122000000	58	50
1413000000	58	50
1778000000	58	50
2250000000	58	50
2850000000	58	50
3600000000	58	50
4500000000	58	50
5620000000	58	50
7080000000	58	50
8910000000	58	50
11220000000	58	50
14130000000	58	50
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~~ILLINOIS REGISTER~~

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

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<u>Insertion</u>	
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Deletions	216
Moved from	0
Moved to	0
Style change	0
Format changed	0
Total changes	342

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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STATE OF ILLINOIS
Pollution Control Board

- 1) Heading of the Part: General Provisions
- 2) Code Citation: 35 Ill. Adm. Code 900
- 3)

<u>Section Numbers</u> :	<u>Proposed Actions</u> :
900.101	Amendment
900.102	Amendment
900.103	Amendment
900.104	Repealed
900.105	Amendment
900.106	Amendment
900.APPENDIX A	Repealed
- 4) Statutory Authority: Implementing and authorized by Sections 27 and 28 of the Illinois Environmental Protection Act [415 ILCS 5/27 and 28].
- 5) A Complete Description of the Subjects and Issues Involved: In Part 900, the Board updates definitions, and references, clarifies language, and removes obsolete provisions. The Board repeals Section 900.104 because its provisions are covered by general requirements of civil and administrative procedure.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Will this rulemaking replace any emergency rule currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? Yes
- 10) Are there any other rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objective: The amendments streamline, update, and overhaul rules that are no longer current due to changing technology and the passage of time. The proposed changes involve updating definitions, references, and sound measurement procedures.
- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comments on this proposal for a period of at least 45 days after the date of publication in the *Illinois Register*. Public comments

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

must be filed with the Clerk of the Board. Public comments should reference Docket R18-19 and be addressed to:

Clerks Office
Illinois Pollution Control Board
JRTC
100 W. Randolph St., Suite 11-500
Chicago IL 60601

Public comments may also be filed electronically through the Clerk's Office On-Line (COOL) on the Board's website at www.ipcb.state.il.us.

Interested persons may request copies of the Board's opinion and order in R18-19 by calling the Clerk's office at 312/814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not-for-profit corporations affected: None, amendments are not substantive.
- B) Reporting, bookkeeping or other procedures required for compliance: None
- C) Types of professional skills necessary for compliance: None

14) Regulatory Agenda on which this rulemaking was summarized: July 2017

The full text of the Proposed Amendments begins on the next page:

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE H: NOISE
3 CHAPTER I: POLLUTION CONTROL BOARD
4

5 PART 900
6 GENERAL PROVISIONS
7

8 Section

- 9 900.101 Definitions
10 900.102 Prohibition of Noise Pollution
11 900.103 Measurement Procedures
12 900.104 Burden of Persuasion Regarding Exceptions (Repealed)
13 900.105 Severability
14 900.106 Incorporations~~Incorporation~~ by Reference

15
16 900.APPENDIX A Old Rule Numbers Referenced (Repealed)
17

18 AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental
19 Protection Act [415 ILCS 5/25 and 27].
20

21 SOURCE: Originally filed as Part 1 of Chapter 8: Noise Pollution, effective August 10, 1973;
22 amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective
23 June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg.
24 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13579; amended in R83-7 at 11 Ill.
25 Reg. 3121, effective January 28, 1987; amended in R03-8 at 27 Ill. Reg. 16247, effective
26 October 8, 2003; amended at 42 Ill. Reg. _____, effective _____.
27

28 **Section 900.101 Definitions**
29

30 Except as stated and unless a different meaning of a term is clear from its context, the definitions
31 of terms used in this Chapter are the same as those used in the Environmental Protection Act.
32 All definitions of acoustical terminology must be in conformance with those contained in
33 ~~American National Standards Institute (ANSI/ASA) S1.1-2013/1994 (R1999) "American~~
34 ~~National Standard Acoustical Terminology" and S12.9-2013/Part 1/1988 (R1998) "American~~
35 ~~National Standard Quantities and Procedures for Description and Measurement of Environmental~~
36 ~~Sound – Part 1: Basic Quantities and Definitions," incorporated by reference at Section 900.106.~~
37 As used in 35 Ill. Adm. Code 900 through 910, the following terms mean:

38
39 "A-Weighted Sound Level": 10 times the logarithm to the base 10 of the square
40 of the ratio of the A-weighted (and time-averaged) sound pressure, to the
41 reference sound pressure of 20 micropascal. The frequency and time weighting
42 must be specified in compliance~~accordance~~ with ANSI/ASA S1.4-2014/Part
43 1/IEC 61672:1-2013/1983 (R2001) "American National Standard

44 Electroacoustics Specification for Sound Level Meters-Part 1: Specifications (a
45 nationally adopted international standard," incorporated by reference at Section
46 900.106. The unit of sound level is the decibel (dB) with the letter (A) appended
47 to the decibel unit symbol to indicate the weighting and written as dB(A).
48

49 "Ambient": the all-encompassing sound associated with a given environment
50 without contributions from the noise source or sources of interest.
51

52 "Angle of incidence": the orientation of the microphone relative to the sound
53 source.
54

55 "ANSI": American National Standards Institute or its successor bodies.
56

57 "Antique vehicle": a motor vehicle that is more than 25 years old of age or its a
58 bona fide replica, thereof and which is driven on the highways only going to and
59 returning from an antique auto show or an exhibition, or for servicing or
60 demonstration, or a fire-fighting vehicle that is more than 20 years old which is
61 not used as fire-fighting equipment but is used only for the purpose of exhibition
62 or demonstration.
63

64 "ASA": Acoustical Society of America.
65

66 "Background ambient sound level": means the ambient sound level, measured in
67 compliance with the procedures specified in 35 Ill. Adm. Code 910.
68

69 "Bus": every motor vehicle designed for carrying more than 10 passengers and
70 used for the transportation of passengers; and every motor vehicle, other than a
71 taxicab, designed and used for the transportation of persons for compensation.
72

73 "C-weighted sound level": in decibels, a frequency-weighted sound pressure
74 level, determined by the use of the metering characteristics and C-weighted
75 network specified in ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013+983
76 (R2001) "American National Standard Electroacoustics Specification for Sound
77 Level Meters – Part 1: Specifications (a nationally adopted international
78 standard)," incorporated by reference at Section 900.106.
79

80 "Common carrier by motor vehicle": any person holding itself out to the general
81 public to provide, for compensation, transportation of passengers or property in
82 interstate or foreign commerce by motor vehicle, whether over regular or irregular
83 routes.
84

85 "Construction": on-site erection, fabrication, installation, alteration, demolition or
86 removal of any structure, facility, or its addition thereto, including all related

87 activities including, but not restricted to, clearing of land, earth-moving, blasting
88 and landscaping.

89
90 "Contract carrier by motor vehicle": any person, other than "common carrier by
91 motor vehicle", who provides, for compensation, transportation of passengers or
92 property in interstate or foreign commerce by motor vehicle under contracts with
93 one person or a limited number of persons, either:

94
95 to provide transportation services through the assignment of motor
96 vehicles to the exclusive use of a served person for a specific period of
97 time; or

98
99 to provide transportation services designed to meet a distinct need of an
100 individual customer.

101
102 "Daytime hours": 7:00 am to 10:00 pm, local time.

103
104 "dB(A)": see "A-weighted sound level in ~~decibels~~decibels."

105
106 "Dealer": every person engaged in the business of selling vehicles to persons who
107 purchase such vehicles for purposes other than resale, and who has an established
108 place of business for such activity in this state.

109
110 "Decibel" or "(dB)": a unit of measure, on a logarithmic scale to the base 10, of
111 the ratio of the magnitude of a particular sound pressure to a standard reference
112 pressure, which, for purposes of this Chapter, ~~is~~shall be 20 micronewtons per
113 square meter ($\mu\text{N}/\text{m}^2$) or 20 micropascals (μPa).

114
115 "Discrete tone": a sound wave whose instantaneous sound pressure varies
116 essentially as a simple sinusoidal function of time.

117
118 "Exhaust system": the system comprised of a combination of components which
119 provides for the enclosed flow of exhaust gas from engine parts to the
120 atmosphere.

121
122 "Existing property-line-noise-source": any property-line-noise-source, the
123 construction or establishment of which commenced prior to August 10, 1973. For
124 the purposes of this sub-section, any property-line-noise-source whose A, B or C
125 land use classification changes, on or after August 10, 1973, is not considered an
126 existing property-line-noise-source.

127
128 "Farm tractor": every motor vehicle designed and used primarily as a farm
129 implement for drawing wagons, plows, mowing machines and other implements

130 of husbandry, and every implement of husbandry which is self-propelled.

131
 132 "Fast Dynamic Characteristic": the dynamic characteristic specified as fast in
 133 ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013+983 (R-2001) "American
 134 National Standard Electroacoustics Specification for Sound Level Meters – Part 1:
 135 Specifications (a nationally adopted international standard)," incorporated by
 136 reference at Section 900.106.

137
 138 "Fast meter response": as specified in ANSI/ASA, S1.4-2014/Part 1/IEC
 139 61672:1-2013+983 (R2001) "American National Standard
 140 Electroacoustics Specification for Sound Level Meters – Part 1: Specifications (a
 141 nationally adopted international standard)," incorporated by reference at Section
 142 900.106.

143
 144 "Fluctuating sound": a class of non-steady nonsteady sound where sound pressure
 145 level varies over a range greater than 6 decibels (dB) with the "slow" meter
 146 characteristic, and where the meter indication does not equal the ambient level
 147 more than once during the period of observation.

148
 149 "Frequency-weighted sound pressure": root mean square of the instantaneous
 150 sound pressure which is frequency-weighted (i.e., filtered) with a standard
 151 frequency characteristic (e.g., A or C) and exponentially time-weighted in
 152 compliance accordance with the standardized characteristics slow (S), fast (F),
 153 impulse (I) or peak, with both weightings specified in compliance accordance with
 154 ANSI S1.4-2014/Part 1/IEC 61672:1-2013+983 (R2001) "American National
 155 Standard Electroacoustics Specification for Sound Level Meters – Part 1:
 156 Specifications (a nationally adopted international standard)," incorporated by
 157 reference at Section 900.106. The frequency weighting used must shall be
 158 specified explicitly (e.g., A, C or octave band). The unit frequency-weighted
 159 sound pressure is the pascal (Pa).

160
 161 "Gross combination weight rating": the value specified by the manufacturer as the
 162 loaded weight of a combination vehicle.

163
 164 "Gross Vehicle Weight" or "(GVW)": the maximum loaded weight for which a
 165 motor vehicle is registered or, for vehicles not so registered, the value specified
 166 by the manufacturer as the loaded weight of the vehicle.

167
 168 "Gross vehicle weight rating" or "GVWR": the value specified by the
 169 manufacturer as the loaded weight of a single vehicle.

170
 171 "Highly Impulsive Sound": either a single pressure peak or a single burst
 172 (multiple pressure peaks) for a duration usually less than one second. Examples

173 of highly impulsive sound sources are drop forge hammer and explosive blasting.

174
175 "Highway": the entire width between the boundary lines of every way publicly
176 maintained when any part of itthereof is open to the use of the public for purposes
177 of vehicular travel.

178
179 "IEC": International Electrotechnical Commission.

180
181 "IHRA": International Hot Rod Association or its successor body.

182
183 "Intermittent sound": a class of non-steady ~~nonsteady~~-sound where the meter
184 indicates a sound pressure level equal to the ambient level two or more times
185 during the measurement period. The period of time during which the level of the
186 sound remains at a value different from that of the ambient is of the order of one
187 second or more.

188
189 "LBCS": the Land-Based Classification Standards which designate land use
190 functions by means of numeric codes.

191
192 "L_{eq}" : equivalent continuous sound pressure in decibels: 10 times the logarithm to
193 the base 10 of the ratio of a time mean square sound pressure, during the specified
194 time period, to the square of reference sound pressure. The reference sound
195 pressure is 20 micronewtons per square meter or equivalent continuous
196 frequency-weighted sound pressure.

197
198 "L_{eq} (A)": A-weighted time-average (equivalent-continuous) sound level.

199
200 "L_{eq} (octave band-Hz)": time-average (equivalent-continuous) sound level in the
201 octave band specified by its center frequency e.g. L_{eq} (125-Hz).

202
203 "Measurement Period": the time interval during which acoustical data are
204 obtained. The measurement period is determined by the characteristics of the
205 noise being measured and must be at least ten times as long as the response time
206 of the instrumentation. The greater the variation in indicated sound level, the
207 longer must be the observation time for a given expected precision of the
208 measurement.

209
210 "Motor carrier": a common carrier by motor vehicle, a contract carrier by motor
211 vehicle, or a private carrier of property by motor vehicle. The term "motor
212 carrier" includes those persons that own and operate the subject motor vehicles,
213 but not their drivers, unless the drivers both own and drive their own vehicles.

214
215 "Motor driven cycle": every motorcycle, motor scooter, or bicycle with motor

216 attached, with less than 150 cubic centimeter piston displacement.
217
218 "Motor vehicle": every vehicle which is self-propelled and any combination of
219 vehicles which are propelled or drawn by a vehicle which is self-propelled.
220
221 "Motorcycle": every motor vehicle having a seat or saddle for the use of the rider
222 and designed to travel on not more than 3 wheels in contact with the ground, but
223 excluding a tractor.
224
225 "Muffler": a device for abating the sounds of escaping gases of an internal
226 combustion engine.
227
228 "New snowmobile": a snowmobile, the equitable or legal title to which has never
229 passed to a person who purchases it for purposes other than resale.
230
231 "Nighttime hours": 10:00 pm to 7:00 am, local time.
232
233 "Noise floor": the electrical noise (in decibels) of the sound measurement system.
234 When the noise floor is determined by placing a calibrator over the microphone of
235 the sound measurement system, the noise floor may include acoustic noise due to
236 leakage around the calibrator.
237
238 "Noise pollution": the emission of sound that unreasonably interferes with the
239 enjoyment of life or with any lawful business or activity.
240
241 "Non-steady sound": a sound whose sound pressure level shifts significantly
242 during the measurement period. Meter variations are greater than ± 3 dB using the
243 "slow" meter characteristic.
244
245 "Octave band sound pressure level": the sound pressure level for the sound being
246 measured contained within the specified octave band. The reference pressure is
247 20 micronewtons per square meter.
248
249 "Open site": an area that is essentially free of large sound-reflecting objects, such
250 as barriers, walls, board fences, signboards, parked vehicles, bridges or buildings.
251
252 "Pascal" or "(Pa)": a unit of pressure. One pascal is equal to one newton per
253 square meter.
254
255 "Passenger car": a motor vehicle designed for the carrying of not more than ten
256 persons, including a multi-purpose passenger vehicle, except any motor vehicle of
257 the second division as defined in 625 ILCS 5/1-146, and except any motorcycle or
258 motor driven cycle.

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"Person": any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other State or political subdivision or agency thereof or any legal successor, representative, agent or agency of the foregoing.

"Preferred frequencies": those frequencies in Hertz preferred for acoustical measurements which, for the purposes of this Chapter, consist of the following set of values: 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10,000, 12,500.

"Private carrier of property by motor vehicle": any person, other than "common carrier by motor vehicle" or "contract carrier by motor vehicle", who transports in interstate or foreign commerce by motor vehicle any property owned, leased, or bailed by that person.

"Prominent discrete tone": sound, having a $\frac{1}{3}$ octave band sound pressure level that which, when measured in a one-third octave band at the preferred frequencyfrequencies, exceeds, by any of the following values, the arithmetic average of the sound pressure levels of boththe two adjacent $\frac{1}{3}$ octave bands on either side of such one-third octave band by:

A value of 5 dB or more for a $\frac{1}{3}$ octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive, but only if that $\frac{1}{3}$ octave band sound pressure level also exceeds the sound pressure level of each adjacent $\frac{1}{3}$ octave band, or;

A value of 8 dB or more for a $\frac{1}{3}$ octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive, but only if that $\frac{1}{3}$ octave band sound pressure level also exceeds the sound pressure level of each adjacent $\frac{1}{3}$ octave band, or;

A value of 15 dB or more for a $\frac{1}{3}$ octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive, but only if that $\frac{1}{3}$ octave band sound pressure level also exceeds the sound pressure level of each adjacent $\frac{1}{3}$ octave band.

BOARD NOTE: A sound measured at a preferred frequency of 400 Hz, for example, would be a prominent discrete tone only if its $\frac{1}{3}$ octave band sound pressure level (1) exceeds the $\frac{1}{3}$ octave band sound pressure level of 315 Hz; (2) exceeds the $\frac{1}{3}$ octave band sound pressure level of 500 Hz; and (3) exceeds by 8 dB or more the arithmetic average of the $\frac{1}{3}$ octave band sound

302 pressure levels of 315 Hz and 500 Hz.

303
304 "Property-line-noise-source": any equipment or facility, or a combination of
305 equipment and facility thereof, thatwhich operates within any land used as
306 specified by 35 Ill. Adm. Code 901.101. ~~The~~Such equipment or facility, or the
307 combination thereof, must be capable of emitting sound beyond the property line
308 of the land on which operated.

309
310 "Quasi-steady sound": a train of two or more acoustical impulses. Examples of
311 quasi-steady sound are that from riveting and pneumatic hammer.

312
313 "Reflective surface": any building, hillside, or similar object (other than the flat
314 ground surface) that reflects sufficient sound to affect the sound pressure level
315 readings obtained from a noise source. Not included as reflective surfaces are
316 small objects such as trees, posts, chain-linked fences, fire hydrants, vegetation
317 such as bushes and shrubs, or any similar object.

318
319 "Registered": a vehicle is registered when a current registration certificate or
320 certificates and registration plates have been issued for it under the laws of any
321 state pertaining to the registration of vehicles.

322
323 "Residential dwelling unit": all land used as specified by the Land-Based
324 Classification Standards (LBCS) Codes 1100 through 1340 and those portions of
325 land used as specified by LBCS Code 6222 used for sleeping (see 35 Ill. Adm.
326 Code 901.Appendix B).

327
328 "SAE": Society of Automotive Engineers.

329
330 "Slow Dynamic Characteristic": the dynamic characteristic specified as "Slow" in
331 ANSI/ASA S1.4-20141983 (R2001) "American National Standard Specification
332 for Sound Level Meters – Part 1," incorporated by reference at Section 900.106.

333
334 "Snowmobile": a self-propelled device designed for travel on snow or ice or
335 natural terrain steered by skis or runners, and supported in part by skis, belts, or
336 cleats.

337
338 "Sound": a physical disturbance causing an oscillation in pressure in a medium
339 (e.g., air) that is capable of being detected by the human ear or a sound measuring
340 instrument.

341
342 "Sound exposure" or "(SE)": time integral of squared, frequency-weighted
343 instantaneous sound pressure over a given time interval. The time period of
344 integration must be specified: when the sound exposure of the background noise

345 is a significant contributor to the total sound exposure; or when the threshold
 346 sound level of the instrument (a level below which the instrument does not
 347 accumulate contributions to the integral) used is above the level of the
 348 background noise; or when such data is needed to identify a source; or when the
 349 time period of integration is otherwise useful. The customary unit for sound
 350 exposure is pascal-squared second (Pa²-s).

351
 352 "Sound exposure level" or "SEL" or "L_{eT}": 10 times the logarithm to the base 10
 353 of the ratio of sound exposure to the reference sound exposure (E₀) of 400
 354 micropascal-squared seconds (μPa²-s). For a given measurement time period of T
 355 seconds, the sound exposure level (L_{eT}) is related to the time-average sound level
 356 (L_{pT}) as follows: $L_{eT} = L_{pT} + \log(T/t_0)$ where t₀ is the reference duration of 1
 357 second. The time period of ~~integration~~ ~~intergration~~ (T) must be specified. The
 358 frequency weighting used must be specified explicitly (e.g., A, C or octave band).
 359 The A-weighted SEL and C-weighted SEL are abbreviated ASEL and CSEL
 360 respectively. An octave band SEL is expressed in terms of the center frequency
 361 (e.g., SEL at 125-Hz). The unit for sound exposure level is decibel (dB).

362
 363 "Sound level" or "weighted sound pressure level": 20 times the logarithm to the
 364 base 10 of the ratio of the frequency-weighted (and time-averaged) sound
 365 pressure to the reference pressure of 20 micropascals. The frequency weighting
 366 used ~~must~~ ~~shall~~ be specified explicitly (e.g., A, C or octave band). The unit for
 367 sound level is decibel (dB).

368
 369 "Sound pressure": the root mean square of the instantaneous sound pressures
 370 during a specified time interval in a stated frequency band. The unit for sound
 371 pressure is pascal (Pa).

372
 373 "Sound pressure level": 20 times the logarithm to the base 10 of the ratio of the
 374 particular sound pressure to the reference sound pressure of 20 micropascals.
 375 ANSI S12.9-1988 (R1998) "American National Standard Quantities and
 376 Procedures for Description and Measurement of Environmental Sound – Part 1,"
 377 incorporated by reference at Section 900.106, reserves the term sound pressure
 378 level to denote the unweighted sound pressure. The unit for sound pressure level
 379 is decibel (dB).

380
 381 "Special mobile equipment": every vehicle not designed or used primarily for the
 382 transportation of persons or property and only incidentally operated or moved
 383 over a highway, including ~~but not limited to~~: ditch digging apparatus, well-boring
 384 apparatus and road construction and maintenance machinery such as asphalt
 385 spreaders, bituminous mixers, bucket loaders, tractors other than truck tractors,
 386 leveling graders, finishing machines, motor graders, road rollers, scarifiers, earth-
 387 moving carryalls and scrapers, power shovels and drag lines, and self-propelled

388 cranes and other earth-moving equipment.

389
 390 "Steady sound": a sound whose sound pressure level remains essentially constant
 391 (that is, meter fluctuations are negligibly small) during the measurement period.
 392 Meter variations are less than or equal to +/-3 dB using the "slow" meter
 393 characteristic.

394
 395 "Tactical military vehicle": every vehicle operated by any federal or state military
 396 organization and designed for use in field operations, but not including vehicles
 397 such as staff cars and personnel carriers designed primarily for normal highway
 398 use.

399
 400 "Time-average sound level" or "(or equivalent-continuous sound level" or
 401 "equivalent-continuous frequency-weighted sound pressure level): 20 times the
 402 logarithm to the base 10 of the ratio of the time-average (frequency-weighted)
 403 sound pressure to the reference pressure of 20 ~~micropascals~~^{micropascal}. The
 404 frequency weighting used must be specified explicitly (e.g., A, C or octave band).
 405 The unit of time-average sound level is the decibel (dB).
 406

407 "Time-average (frequency-weighted) sound pressure": square root of the quotient
 408 of the time integral of frequency-weighted squared instantaneous sound pressures
 409 divided by the time period of integration; or the square root of the quotient of the
 410 sound exposure, in pascal-squared seconds (Pa²-s), in a specified time period,
 411 divided by the time period of integration in seconds. The frequency weighting
 412 used must be specified explicitly (e.g., A, C or octave band). The unit of time-
 413 average sound pressure is the pascal (Pa).
 414

415 "Unregulated safety relief valve": a safety relief valve used and designed to be
 416 actuated by high pressure in the pipe or vessel to which it is connected and
 417 ~~that~~^{which} is used and designed to prevent explosion or other hazardous reaction
 418 from pressure buildup, rather than being used and designed as a process pressure
 419 blowdown.
 420

421 "Used motor vehicle": a motor vehicle that is not a new motor vehicle.
 422

423 "Vehicle": every device in, upon, or by which any person or property is or may
 424 be transported or drawn upon a highway.
 425

426 "Weekday": any day ~~that~~^{which} occurs during the period of time commencing at
 427 10:00 p.m. Sunday and ending at 10:00 p.m. Friday during any particular week.
 428

429 "Weekend day": any day ~~that~~^{which} occurs during the period of time commencing
 430 at 10:00 p.m. Friday and ending at 10:00 p.m. Sunday during any particular week.

"Well-maintained muffler": any muffler ~~that~~ which is free from defects which affect its sound reduction. ~~The~~ Such muffler ~~must~~ shall be free of visible defects such as holes and other acoustical leaks.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.102 Prohibition of Noise Pollution

~~A~~ No person ~~must not~~ shall cause or allow the emission of sound beyond the boundaries of ~~that~~ person's his property, as ~~property is defined in Section 25 of the Illinois Environmental Protection Act [415 ILCS 5], that causes~~ as to cause noise pollution in Illinois; or ~~violates~~ as to violate any provision of this Chapter.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.103 Measurement Procedures

a) Procedures Applicable to all of 35 Ill. Adm. Code: Subtitle H, Chapter I
~~The~~ The Agency may adopt procedures which set forth criteria for the measurement of sound for all Parts except 35 Ill. Adm. Code 900 and 901. Such procedures for the measurement of sound under Subtitle H, Chapter I, except for Parts 900 and 901, must shall be in substantial conformity with standards and recommended practices established by the ~~American National Standards Institute, Inc. (ANSI, ASA, IEC,) or the Society of Automotive Engineers, Inc. (SAE),~~ incorporated by reference at Section 900.106. Such procedures shall be revised from time to time to reflect current engineering judgment and advances in noise measurement techniques. Such procedures, and revisions thereof, shall not become effective until filed with the Administrative Code Division of the Office of the Secretary of State as required by the Illinois Administrative Procedure Act [5 ILCS 100]. The sound measurement Measurement procedures for 35 Ill. Adm. Code 900 and 901 ~~must~~ shall conform to 35 Ill. Adm. Code 910.

b) Procedures Applicable Only only to 35 Ill. Adm. Code 901

1) All measurements and all measurement procedures to determine ~~compliance whether emissions of sound comply with 35 Ill. Adm. Code 901 shall, except for with the exception of~~ measurements to determine ~~compliance whether emissions of sound comply with 35 Ill. Adm. Code 901.109, must~~ be based on L_{eq} averaging, as defined in ~~Section 35 Ill. Adm. Code 900.101, using a reference time as follows:~~

A) Except as specified in subsection (b)(1)(B) for steady sound, use a

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reference time of at least 1 hour shall be used for all sound measurements and measurement procedures.

B) For measurement of steady sound as defined in Section 900.101 of this Part, use athe reference time ofshall be at least 10 minutes.

2) All measurements and measurement procedures under subsection (b)(1)(B) of this Section must correct or provide for the correction of soundseh emissions for the presence of ambient or background noise in complianceeeordane with the procedures in 35 Ill. Adm. Code 910. All measurements must be in conformity with the following ANSI standards, incorporated by reference at Section 900.106:

A) ANSI/ASA S1.4-2014/Part 1~~1983 (R2001)~~ "American National Standard ElectroacousticsSpecification for Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)."

B) ANSI/ASA S1.6-2016~~1984 (R2001)~~ "American National Standard Preferred Frequencies and Filter Bank Center Frequencies; Frequency Levels, and Band Numbers for Acoustical Measurements."

C) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-2014~~1986 (R1998)~~ "American National Standard Specification for Octave-Band and Fractional-Octave-Band Analog and Digital Filters – Part 1: Specifications (a nationally adopted international standard)."

D) ANSI/ASA S1.13-2005 ~~(R2010~~1995 ~~(R1999)~~ "American National Standard Measurement of Sound Pressure Level in Air."

E) ANSI S12.9-2013/Part 3~~1993 (R1998)~~ "American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements withWith an Observer Present."

c) Procedures Applicable Onlyonly to 35 Ill. Adm. Code 902

1) ToMeasurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 902.120 through 902.123, use measurement procedures compliant must be in conformity with the

following ANSI standards incorporated by reference at Section 900.106:

A) ~~ANSI S1.4-2014/Part 1/IEC 61672:1-2013+1983 (R2001)~~
"American National Standard Electroacoustics – Specification for Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)."

B) ~~ANSI S1.13-2005 (R2010)+1995 (R1999)~~ "American National Standard Measurement of Sound Pressure Level in Air."

2) The procedures for sound measurement under 35 Ill. Adm. Code 902.123 must conform to the ANSI standards prescribed in subsection (c)(1), ~~above, if provided~~ that the procedures are in conformity with those established by the U.S. Department of Transportation ~~at~~ under 49 CFR 325 as ~~directed by pursuant to~~ Section 17 of the Federal Noise Control Act of 1972, (42 USC 4901 et seq.).

3) The Board may provide for measurement at distances other than the 50 feet specified in 35 Ill. Adm. Code 902.120 through 902.123, ~~if provided~~ that correction factors are applied so that the sound levels so determined are substantially equivalent to those measured at 50 feet and the measurement distance does not exceed 100 feet. The correction factors used shall be consistent with California Highway Patrol Sound Measurement Procedures HPH 83.1 (October 1, 1973, as amended November 9, 1975), incorporated by reference at Section 900.106.

d) Procedures Applicable ~~only~~ to 35 Ill. Adm. Code 905

1) ~~To~~Measurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(a) and 905.103(a)(1), use measurement procedures compliant ~~must be in conformity with the~~ following standards incorporated by reference at Section 900.106:

A) ~~ANSI S1.4-2014/Part 1/IEC 61672:1-2013+1983 (R2001)~~
"American National Standard Electroacoustics~~Specification for~~ Sound Level Meters – Part 1: Specifications."

B) SAE Recommended Practice J192 "Exterior Sound Level for Snowmobiles:", ~~January 2013~~ March 1985.

2) ~~To~~Measurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(b) and 905.103(a)(2), use measurement procedures substantially compliant ~~shall be in substantial~~

conformity with the following standards incorporated by reference at Section 900.106:

- A) ANSI S1.4-2014/Part 1/IEC 61672:1-2013-1983 (R2001) "American National Standard Electroacoustics Specification for Sound Level Meters: Specifications."
- B) SAE/ANSI Recommended Practice J1161 "Operational Sound Level Measurement Procedure for Snow Vehicles", April 2004~~March 1983.~~

3) ~~The Agency may establish criteria for measuring at distances other than the 50 feet specified in 35 Ill. Adm. Code 905.102 and 905.103, provided that correction factors are applied so that the sound levels so determined are substantially equivalent to those measured at 50 feet. In adopting new or revised criteria, the Agency shall comply with the requirements of the Illinois Administrative Procedure Act, [5 ILCS 100].~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.104 Burden of Persuasion Regarding Exceptions (Repealed)

~~In any proceeding pursuant to this Chapter, if an exception stated in this Chapter would limit an obligation, limit a liability, or eliminate either an obligation or a liability, the person who would benefit from the application of the exception shall have the burden of persuasion that the exception applies and that the terms of the exception have been met. The Agency shall cooperate with and assist persons in determining the application of the provisions of this Chapter.~~

(Source: Repealed at 42 Ill. Reg. _____, effective _____)

Section 900.105 Severability

~~If any provision of this Chapter these rules or regulations is adjudged invalid, or its if the application thereof to any person or in any circumstances is adjudged invalid, that such invalidity shall not affect the validity of any other provision of this Chapter or of the Chapter as a whole or of any part, sub part, sentence or clause thereof not adjudged invalid.~~

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.106 Incorporations Incorporation by Reference

602 The Board incorporates the following material by reference. These incorporations include no
 603 later amendments or editions.

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- a) American National Standards Institute, 25 West 43rd Street, 4th Fl., New York, New York 10036. (212)642-4900.
 - 1) ~~ANSI/ASA S1.1-2013~~1994 (R1999) "American National Standard Acoustical Terminology."
 - 2) ~~ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013~~1983 (R2001) "American National Standard Electroacoustics – Sound Level Meters – Part 1: Specifications (a nationally adopted international standard) ~~Specification for Sound Level Meters.~~"
 - 3) ~~ANSI/ASA S1.6-2016~~1984 (R2001) "American National Standard Preferred Frequencies and Filter Bank Center Frequencies, Frequency Levels, and Band Numbers for Acoustical Measurements."
 - 4) ~~ANSI/ASA S1.8-2016~~1989 "American National Standard Reference Values for Levels Used in Acoustics and Vibrations ~~Quantities for Acoustical Levels.~~"
 - 5) ~~ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-2014~~1986 (R1998) "Electroacoustics – American National Standard Specification for Octave-Band and Fractional-Octave-Band Analog and Digital Filters – Part 1: Specifications (a nationally adopted international standard)."
 - 6) ~~ANSI/ASA S1.13-2005~~1995 (R2010)1999) "American National Standard Measurement of Sound Pressure Level in Air."
 - 7) ~~ANSI/ASA S12.9-2013/Part 1~~1988 (R1998) "American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound – Part 1: Basic Quantities and Definitions."
 - 8) ~~ANSI/ASA S12.9-2013/Part 3~~1993 (R1998) "American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements ~~with~~ With an Observer Present."
 - 9) ~~ANSI/ASA S12.531-2012/ISO 3741:2010~~1990 (R2001) "Acoustics American National Standard Precision Methods for the Determination of Sound Power Levels of Broad-Band Noise Sources"

- 644 using Sound Pressure – Precision Methods for in Reverberation Test
645 Rooms (a nationally adopted international standard)."
646
647 10) ANSI S12.32-1990 (R2001) "American National Standard Precision
648 Methods for the Determination of Sound Power Levels of Discrete-
649 Frequency and Narrow Band Noise Sources in Reverberation
650 Rooms."11)International Electrotechnical Commission, IEC 61672-1:2013
651 804-2000 "ElectroacousticsIntegrating/Averaging Sound Level Meters –
652 Part 1: Specifications."
653
654 b) Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA
655 15096. (877)606-7323.
656
657 1) SAE Recommended Practice J184 "Qualifying a Sound Data Acquisition
658 System." November 1998.
659
660 2) SAE Recommended Practice J192 "Exterior Sound Level for
661 Snowmobiles-", January 2015~~March 1985~~.
662
663 3) SAE/ANSI Recommended Practice J1161 "Operational Sound Level
664 Measurement Procedure for Snowmobiles~~Snow Vehieles~~.", April
665 2004~~March 1983~~.
666
667 c) California Highway Patrol Sound Measurement Procedures HPH 83.1 (October 1,
668 1973, as amended November 9, 1975. Available at Illinois Pollution Control
669 Board Clerk's Office, 100 W. Randolph Street, Suite 11-500, Chicago, IL 60601.
670 (312)814-3620.
671
672 d) Code of Federal Regulations
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674 1) 40 CFR 202.12(e) (2017).
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676 2) 40 CFR 202.20(a) (2017).
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678 3) 40 CFR 202.21(a) (2017).
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680 4) 40 CFR 202.22 (2017).
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682 5) 40 CFR 202.23 (2017).
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684 6) 40 CFR 205.152(a) (2017).
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686 7) 40 CFR 205.166 (2017).

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(Source: Amended at 42 Ill. Reg. _____, effective _____)

690 **Section 900.APPENDIX A Old Rule Numbers Referenced (Repealed)**

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692 The following table is provided to aid in referencing old Board rule numbers to section numbers
693 pursuant to codification.
694

Old Part 1 of Chapter 8	35 Ill. Adm. Code Part 900
Rule 101	Section 900.101
Rule 102	Section 900.102
Rule 103	Section 900.103
Rule 104	Section 900.104
Rule 105	Section 900.105

695
696 (Source: Repealed at 42 Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: POLLUTION CONTROL BOARD

PART 900
GENERAL PROVISIONS

Section	
900.101	Definitions
900.102	Prohibition of Noise Pollution
900.103	Measurement Procedures
900.104	Burden of Persuasion Regarding Exceptions (Repealed)
900.105	Severability
900.106	Incorporations by Reference

900.APPENDIX A Old Rule Numbers Referenced (Repealed)

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Originally filed as Part 1 of Chapter 8: Noise Pollution, effective August 10, 1973; amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg. 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13579; amended in R83-7 at 11 Ill. Reg. 3121, effective January 28, 1987; amended in R03-8 at 27 Ill. Reg. 16247, effective October 8, 2003; amended at 42 Ill. Reg. _____, effective _____.

Section 900.101 Definitions

Except as stated and unless a different meaning of a term is clear from its context, the definitions of terms used in this Chapter are the same as those used in the Environmental Protection Act. All definitions of acoustical terminology must be in conformance with those contained in ANSI/ASA S1.1 - 2013 "Acoustical Terminology" and S12.9-2013/Part 1 "Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1: Basic Quantities and Definitions," incorporated by reference at Section 900.106. As used in 35 Ill. Adm. Code 900 through 910, the following terms mean:

"A-Weighted Sound Level": 10 times the logarithm to the base 10 of the square of the ratio of the A-weighted (and time-averaged) sound pressure, to the reference sound pressure of 20 micropascal. The frequency and time weighting must be specified in compliance with ANSI/ASA S1.4-~~1983~~-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters-Part 1: Specifications (a nationally adopted international standard^u,^u incorporated by reference at Section 900.106. The unit of sound level is the decibel (dB) with the letter (A) appended to the decibel unit symbol to indicate the weighting and written as dB(A).

"Ambient": the all-encompassing sound associated with a given environment without contributions from the noise source or sources of interest.

"Angle of incidence": the orientation of the microphone relative to the sound source.

"ANSI": American National Standards Institute or its successor bodies.

"Antique vehicle": a motor vehicle that is more than 25 years old or its bona fide replica, and which is driven on the highways only going to and returning from an antique auto show or an exhibition, or for servicing or demonstration, or a fire-fighting vehicle that is more than 20 years old which is not used as a fire-fighting equipment but is used only for the purpose of exhibition or demonstration.

"ASA": Acoustical Society of America.

"Background ambient sound level": means the ambient sound level, measured in compliance with the procedures specified in 35 Ill. Adm. Code 910.

"Bus": every motor vehicle designed for carrying more than 10 passengers and used for the transportation of passengers; and every motor vehicle, other than a taxicab, designed and used for the transportation of persons for compensation.

"C-weighted sound level": in decibels, a frequency-weighted sound pressure level, determined by the use of the metering characteristics and C-weighted network specified in ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)," incorporated by reference at Section 900.106.

"Common carrier by motor vehicle": any person holding itself out to the general public to provide, for compensation, transportation of passengers or property in interstate or foreign commerce by motor vehicle, whether over regular or irregular routes.

"Construction": on-site erection, fabrication, installation, alteration, demolition or removal of any structure, facility, or its addition, including all related activities including, but not restricted to, clearing of land, earth-moving, blasting and landscaping.

"Contract carrier by motor vehicle": any person, other than "common carrier by motor vehicle", who provides, for compensation, transportation of passengers or property in interstate or foreign commerce by motor vehicle under contracts with one person or a limited number of persons, either:

a) ~~Teto~~ provide transportation services through the assignment of motor vehicles to the exclusive use of a served person for a specific period of time ~~τ_i~~ or

b) ~~Teto~~ provide transportation services designed to meet a distinct need of an individual customer.

"Daytime hours": 7:00 am to 10:00 pm, local time.

"dB(A)": see "A-weighted sound level in decibels."

"Dealer": every person engaged in the business of selling vehicles to persons who purchase such vehicles for purposes other than resale, and who has an established place of business for such activity in this state.

"Decibel ~~(" or "dB)~~": a unit of measure, on a logarithmic scale to the base 10, of the ratio of the magnitude of a particular sound pressure to a standard reference pressure, which, for purposes of this Chapter, is 20 micronewtons per square meter ($\mu\text{N}/\text{m}^2$) or 20 micropascals (μPa).

"Discrete tone": a sound wave whose instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

"Exhaust system": the system comprised of a combination of components which provides for the enclosed flow of exhaust gas from engine parts to the atmosphere.

"Existing property-line-noise-source": any property-line-noise-source, the construction or establishment of which commenced prior to August 10, 1973. For the purposes of this sub-section, any property-line-noise-source whose A, B or C land use classification changes, on or after August 10, 1973, is not considered an existing property-line-noise-source.

"Farm tractor": every motor vehicle designed and used primarily as a farm implement for drawing wagons, plows, mowing machines and other implements of husbandry, and every implement of husbandry which is self-propelled.

"Fast Dynamic Characteristic": the dynamic characteristic specified as fast in ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)," incorporated by reference at Section 900.106.

"Fast meter response": as specified in ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)," incorporated by reference at Section 900.106.

"Fluctuating sound": a class of ~~nonsteady~~non-steady sound where sound pressure level varies over a range greater than 6 decibels (dB) with the "slow" meter characteristic, and where the meter indication does not equal the ambient level more than once during the period of observation.

"Frequency-weighted sound pressure": root mean square of the instantaneous sound pressure which is frequency-weighted (i.e., filtered) with a standard frequency characteristic (e.g., A or C) and exponentially time-weighted in compliance with the standardized characteristics slow (S), fast (F), impulse (I) or peak, with both weightings specified in ~~compliance~~compliance with ANSI S1.4-2014/Part 1~~2~~/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)," incorporated by reference at Section 900.106. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The unit frequency-weighted sound pressure is the pascal (Pa).

"Gross combination weight rating": the value specified by the manufacturer as the loaded weight of a combination vehicle.

"Gross Vehicle Weight~~—" or "GVW"~~": the maximum loaded weight for which a motor vehicle is registered or, for vehicles not so registered, the value specified by the manufacturer as the loaded weight of the vehicle.

"Gross vehicle weight rating" or "GVWR": the value specified by the manufacturer as the loaded weight of a single vehicle.

"Highly Impulsive Sound": either a single pressure peak or a single burst (multiple pressure peaks) for a duration usually less than one second. Examples of highly impulsive sound sources are drop forge hammer and explosive blasting.

"Highway": the entire width between the boundary lines of every way publicly maintained when any part of it is open to the use of the public for purposes of vehicular travel.

"IEC": International Electrotechnical Commission.

"IHRA": International Hot Rod Association or its successor body.

"Intermittent sound": a class of ~~nonsteady~~non-steady sound where the meter indicates a sound pressure level equal to the ambient level two or more times during the measurement period. The period of time during which the level of the sound remains at a value different from that of the ambient is of the order of one second or more.

"LBCS": the Land-Based Classification Standards which designate land use functions by means of numeric codes.

"Leq" : equivalent continuous sound pressure in decibels: 10 times the logarithm to the base 10 of the ratio of a time mean square sound

pressure, during the specified time period, to the square of reference sound pressure. The reference sound pressure is 20 micronewtons per square meter or equivalent continuous frequency-weighted sound pressure.

"Leq (A)": A-weighted time-average (equivalent-continuous) sound level.

"Leq (octave band-Hz)": time-average (equivalent-continuous) sound level in the octave band specified by its center frequency e.g. Leq (125-Hz).

"Measurement Period": the time interval during which acoustical data are obtained. The measurement period is determined by the characteristics of the noise being measured and must be at least ten times as long as the response time of the instrumentation. The greater the variation in indicated sound level, the longer must be the observation time for a given expected precision of the measurement.

"Motor carrier": a common carrier by motor vehicle, a contract carrier by motor vehicle, or a private carrier of property by motor vehicle. The term "motor carrier" includes those persons ~~which~~that own and operate the subject motor vehicles, but not their drivers, unless the drivers both own and drive their own vehicles.

"Motor driven cycle": every motorcycle, motor scooter, or bicycle with motor attached, with less than 150 cubic centimeter piston displacement.

"Motor vehicle": every vehicle which is self-propelled and any combination of vehicles which are propelled or drawn by a vehicle which is self-propelled.

"Motorcycle": every motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than 3 wheels in contact with the ground, but excluding a tractor.

"Muffler": a device for abating the sounds of escaping gases of an internal combustion engine.

"New snowmobile": a snowmobile, the equitable or legal title to which has never passed to a person who purchases it for purposes other than resale.

"Nighttime hours": 10:00 pm to 7:00 am, local time.

"Noise floor": the electrical noise (in decibels) of the sound measurement system. When the noise floor is determined by placing a calibrator over the microphone of the sound measurement system, the noise floor may include acoustic noise due to leakage around the calibrator.

"Noise pollution": the emission of sound that unreasonably interferes with the enjoyment of life or with any lawful business or activity.

"Non-steady sound": a sound whose sound pressure level shifts significantly during the measurement period. Meter variations are greater ~~then~~ ~~+/~~ than +3 dB using the "slow" meter characteristic.

"Octave band sound pressure level": the sound pressure level for the sound being measured contained within the specified octave band. The reference pressure is 20 micronewtons per square meter.

"Open site": an area that is essentially free of large sound-reflecting objects, such as barriers, walls, board fences, signboards, parked vehicles, bridges or buildings.

"Pascal (~~" or "Pa"~~)": a unit of pressure. One pascal is equal to one newton per square meter.

"Passenger car": a motor vehicle designed for the carrying of not more than ten persons, including a multi-purpose passenger vehicle, except any motor vehicle of the second division as defined in 625 ILCS 5/1-146, and except any motorcycle or motor driven cycle.

"Person": any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other State or political subdivision or agency or any legal successor, representative, agent or agency of the foregoing.

"Preferred frequencies": those frequencies in Hertz preferred for acoustical measurements which, for the purposes of this Chapter, consist of the following set of values: 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10,000, 12,500.

"Private carrier of property by motor vehicle": any person, other than "common carrier by motor vehicle" or "contract carrier by motor vehicle", who transports in interstate or foreign commerce by motor vehicle any property owned, leased, or bailed by ~~such~~ that person.

"Prominent discrete tone": ~~means~~ sound having a ~~one-third~~? octave band sound pressure level that, when measured at a preferred frequency, exceeds, by any of the following values, the arithmetic average of the sound pressure levels of both adjacent ~~one-third~~? octave bands:

A value of 5 dB or more for a ~~one-third~~? octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive, but only if that ~~one-third~~? octave band sound pressure level also exceeds the sound pressure level of each adjacent ~~one-third~~? octave band;

A value of 8 dB or more for a ~~one-third~~? octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive, but only if that ~~one-third~~? octave band sound pressure level also exceeds the sound pressure level of each adjacent ~~one-third~~? octave band; or

A value of 15 dB or more for a ~~one-third~~ octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive, but only if that ~~one-third~~ octave band sound pressure level also exceeds the sound pressure level of each adjacent ~~one-third~~ octave band.

BOARD NOTE: A sound measured at a preferred frequency of 400 Hz, for example, would be a prominent discrete tone only if its ~~one-third~~ octave band sound pressure level (1) exceeds the ~~one-third~~ octave band sound pressure level of 315 Hz; (2) exceeds the ~~one-third~~ octave band sound pressure level of 500 Hz; and (3) exceeds by 8 dB or more the arithmetic average of the ~~one-third~~ octave band sound pressure levels of 315 Hz and 500 Hz.

"Property-line-noise-source": any equipment or facility, or ~~theirs~~ combination, ~~which of equipment and facility, that~~ operates within any land used as specified by 35 Ill. Adm. Code 901.101. ~~Such~~~~The~~ equipment or facility, or ~~their~~~~the~~ combination, must be capable of emitting sound beyond the property line of the land on which operated.

"Quasi-steady sound": a train of two or more acoustical impulses. Examples of quasi-steady sound are that from riveting and pneumatic hammer.

"Reflective surface": any building, hillside, or similar object (other than the flat ground surface) that reflects sufficient sound to affect the sound pressure level readings obtained from a noise source. Not included as reflective surfaces are small objects such as trees, posts, chain-linked fences, fire hydrants, vegetation such as bushes and shrubs, or any similar object.

"Registered": a vehicle is registered when a current registration certificate or certificates and registration plates have been issued for it under the laws of any state pertaining to the registration of vehicles.

"Residential dwelling unit": all land used as specified by the Land-Based Classification Standards (LBCS) Codes 1100 through 1340 and those portions of land used as specified by LBCS Code 6222 used for sleeping ~~in~~(~~see~~ 35 Ill. Adm. Code ~~901-901~~ Appendix ~~AB~~).

"SAE": Society of Automotive Engineers.

"Slow Dynamic Characteristic": the dynamic characteristic specified as "Slow" in ANSI/ASA S1.4-2014 "American National Standard Specification for Sound Level Meters - Part 1," incorporated by reference at Section 900.106.

"Snowmobile": a self-propelled device designed for travel on snow or ice or natural terrain steered by skis or runners, and supported in part by skis, belts, or cleats.

"Sound": a physical disturbance causing an oscillation in pressure in a medium (e.g., air) that is capable of being detected by the human ear or a sound measuring instrument.

"Sound exposure—(" or "SE")": time integral of squared, frequency-weighted instantaneous sound pressure over a given time interval. The time period of integration must be specified: when the sound exposure of the background noise is a significant contributor to the total sound exposure; or when the threshold sound level of the instrument (a level below which the instrument does not accumulate contributions to the integral) used is above the level of the background noise; or when such data is needed to identify a source; or when the time period of integration is otherwise useful. The customary unit for sound exposure is pascal-squared second (Pa²-s).

"Sound exposure level—(" or "SEL" or "LeT")": 10 times the logarithm to the base 10 of the ratio of sound exposure to the reference sound exposure (E_0) of 400 micropascal-squared seconds ($\mu\text{Pa}^2\text{-s}$). For a given measurement time period of T seconds, the sound exposure level (~~LeT~~ LeT) is related to the time-average sound level (LpT) as follows: $LeT = LpT + \log (T/t_0)$ where t_0 is the reference duration of 1 second. The time period of ~~intergration~~ integration (T) must be specified. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The A-weighted SEL and C-weighted SEL are abbreviated ASEL and CSEL respectively. An octave band SEL is expressed in terms of the center frequency (e.g., SEL at 125-Hz). The unit for sound exposure level is decibel (dB).

"Sound level—(" or "weighted sound pressure level")": 20 times the logarithm to the base 10 of the ratio of the frequency-weighted (and time-averaged) sound pressure to the reference pressure of 20 micropascals. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The unit for sound level is decibel (dB).

"Sound pressure": the root mean square of the instantaneous sound pressures during a specified time interval in a stated frequency band. The unit for sound pressure is pascal (Pa).

"Sound pressure level": 20 times the logarithm to the base 10 of the ratio of the particular sound pressure to the reference sound pressure of 20 micropascals. ANSI S12.9-1988 (R1998) "American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1," incorporated by reference at Section 900.106, reserves the term sound pressure level to denote the unweighted sound pressure. The unit for sound pressure level is decibel (dB).

"Special mobile equipment": every vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved over a highway, including: ditch digging apparatus, well-boring apparatus and road construction and maintenance machinery such as asphalt spreaders, bituminous mixers, bucket loaders, tractors other than truck tractors, leveling graders, finishing

machines, motor graders, road rollers, scarifiers, earth-moving carryalls and scrapers, power shovels and drag lines, and self-propelled cranes and other earth-moving equipment.

"Steady sound": a sound whose sound pressure level remains essentially constant (that is, meter fluctuations are negligibly small) during the measurement period. Meter variations are less than or equal to +/-3 dB using the "slow" meter characteristic.

"Tactical military vehicle": every vehicle operated by any federal or state military organization and designed for use in field operations, but not including vehicles such as staff cars and personnel carriers designed primarily for normal highway use.

"Time-average sound level ~~(" or " or equivalent-continuous sound level" or "equivalent-continuous frequency-weighted sound pressure level")~~": 20 times the logarithm to the base 10 of the ratio of the time-average (frequency-weighted) sound pressure to the reference pressure of 20 ~~micropascal~~micropascals. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The unit of time-average sound level is the decibel (dB).

"Time-average (frequency-weighted) sound pressure": square root of the quotient of the time integral of frequency-weighted squared instantaneous sound pressures divided by the time period of integration; or the square root of the quotient of the sound exposure, in pascal-squared seconds (Pa²-s), in a specified time period, divided by the time period of integration in seconds. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The unit of time-average sound pressure is the pascal (Pa).

"Unregulated safety relief valve": a safety relief valve used and designed to be actuated by high pressure in the pipe or vessel to which it is connected and ~~which~~that is used and designed to prevent explosion or other hazardous reaction from pressure buildup, rather than being used and designed as a process pressure blowdown.

"Used motor vehicle": a motor vehicle that is not a new motor vehicle.

"Vehicle": every device in, upon, or by which any person or property is or may be transported or drawn upon a highway.

"Weekday": any day ~~which~~that occurs during the period of time commencing at 10:00 p.m. Sunday and ending at 10:00 p.m. Friday during any particular week.

"Weekend day": any day ~~which~~that occurs during the period of time commencing at 10:00 p.m. Friday and ending at 10:00 p.m. Sunday during any particular week.

"Well-maintained muffler": any muffler ~~which~~that is free from defects which affect its sound reduction. ~~Such~~The muffler must be free of visible defects such as holes and other acoustical leaks.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.102 Prohibition of Noise Pollution

A person must not cause or allow the emission of sound beyond the boundaries of that person's property, as defined in Section 25 of the Environmental Protection Act ~~JJ~~(415 ILCS 5/25), ~~which~~that causes noise pollution in Illinois, ~~or which~~ violates any provision of this Chapter.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.103 Measurement Procedures

a) Procedures Applicable to all of 35 Ill. Adm. Code: Subtitle H, Chapter I
The procedures for the measurement of sound under Subtitle H, Chapter I, except for Parts 900 and 901, must be in substantial conformity with standards and recommended practices established by ~~the~~ ANSI, ASA, IEC, or SAE, incorporated by reference at Section 900.106. The sound measurement ~~Procedures~~procedures for 35 Ill. Adm. Code 900 and 901 must conform to 35 Ill. Adm. Code 910.

b) Procedures Applicable ~~only~~Only to 35 Ill. Adm. Code 901

1) All measurements and all measurement procedures to determine compliance with 35 Ill. Adm. Code ~~901 must, 901,~~ except for measurements to determine compliance with 35 Ill. Adm. Code 901.109, must be based on Leq averaging, as defined in ~~35 Ill. Adm. Code~~Section 900.101, using a reference time as follows:

A) Except as specified in subsection (b)(1)(B) for steady sound, use a reference time of at least 1 hour for all sound measurements and measurement procedures.

B) For measurement of steady sound as defined in Section ~~101 of this Part, 900.101,~~ use a reference time of at least 10 minutes.

2) All measurements and measurement procedures under subsection (b)(1)(B) of this Section must correct or provide for the correction of ~~such~~sound emissions for the presence of ambient or background noise in compliance with the procedures in 35 Ill. Adm. Code 910. All measurements must be in conformity with the following ANSI standards, incorporated by reference at Section 900.106:

A) ANSI/ASA S1.4-2014/Part 1 "American National Standard Electroacoustics Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)."

B) ANSI/ASA S1.6-2016 " Preferred Frequencies and Filter Bank Center Frequencies for Acoustical Measurements."

C) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-2014 Electroacoustics Octave-Band and Fractional-Octave-Band Filters - Part 1: Specifications (a nationally adopted international standard)."

D) ANSI/ASA S1.13-~~S.113~~-2005 (R2010) " Measurement of Sound Pressure Level in Air."

E) ANSI S12.9-2013/Part 3 " Quantities and Procedures for Description and Measurement of Environmental Sound - Part 3: Short-Term Measurements with an Observer Present."

c) Procedures Applicable ~~only~~Only to 35 Ill. Adm. Code 902

1) To determine whether emissions of sound comply with 35 Ill. Adm. Code 902.120 through 902.123, use measurement procedures compliant with the following ANSI standards incorporated by reference at Section 900.106:

A) ANSI S1.4-~~2014~~/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics - Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)."

B) ANSI S1.13-2005 (R2010) " Measurement of Sound Pressure Level in Air."

2) The procedures for sound measurement under 35 Ill. Adm. Code 902.123 must conform to the ANSI standards prescribed in subsection (c)(1), ~~above,~~ if the procedures are in conformity with those established by the U.S. Department of Transportation ~~under~~at 49 CFR 325 ~~under~~as directed by Section 17 of the Federal Noise Control Act of ~~1972,~~ 1972 (42 USC 4901 et seq.).

3) The Board may provide for measurement at distances other than the 50 feet specified in 35 Ill. Adm. Code 902.120 through 902.123, if correction factors are applied so that the sound levels so determined are substantially equivalent to those measured at 50 feet and the measurement distance does not exceed 100 feet. ~~Use the~~The correction factors used shall be consistent with California Highway Patrol Sound Measurement Procedures HPH 83.1 (October 1, 1973, as amended November 9, 1975), incorporated by reference at Section 900.106.

d) Procedures Applicable ~~only~~Only to 35 Ill. Adm. Code 905

1) To determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(a) and 905.103(a)(1), use measurement procedures compliant with the following standards incorporated by reference at Section 900.106:

A) ANSI S1.4-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters - Part 1: Specifications."

B) SAE Recommended Practice J192 "Exterior Sound Level for Snowmobiles-". January 2013.

2) To determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(b) and 905.103(a)(2), use measurement procedures ~~substantially~~substantially compliant with the following standards incorporated by reference at Section 900.106:

A) ANSI S1.4-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics Sound Level Meters: Specifications."

B) SAE/ANSI Recommended Practice J1161 "Operational Sound Level Measurement Procedure for Snow Vehicles", April 2004.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.104 Burden of Persuasion Regarding Exceptions (Repealed)

(Source: Repealed at 42 Ill. Reg. _____, effective _____)

Section 900.105 Severability

If any provision of this ~~Chapater~~Chapter is adjudged invalid, or its application to any person or in any circumstances is adjudged invalid, ~~such that~~ invalidity ~~will~~shall not affect the validity of any other provision of this Chapter or of the Chapter as a whole.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.106 ~~Incorporation~~Incorporations by Reference

The Board incorporates the following material by reference. These incorporations include no later amendments or editions.

a) American National Standards Institute, 25 West 43rd Street, 4th Fl., New York, New York 10036. (212)-642-4900.

1) ANSI/ASA S1.1-2013 " Acoustical Terminology."

2) ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013 "American National Standard Electroacoustics - Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)."

3) ANSI/ASA S1.6-2016 " Preferred Frequencies and Filter Bank Center Frequencies for Acoustical Measurements."

4) ANSI/ASA S1.8-2016 "Reference Values for Levels Used in Acoustics and Vibrations Levels."

5) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-2014 "Electroacoustics - Octave-Band and Fractional-Octave-Band Filters - Part 1: Specifications (a nationally adopted international standard)."

6) ANSI/ASA S1.13-2005 (R2010) " Measurement of Sound Pressure Level in Air."

7) ANSI/ASA S12.9-2013/Part 1 " Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1: Basic Quantities and Definitions."

8) ANSI/ASA S12.9-2013/Part 3 " Quantities and Procedures for Description and Measurement of Environmental Sound - Part 3: Short-Term Measurements with an Observer Present."

9) ANSI/ASA S12.51-2012/ISO 3741:2010 "Acoustics Determination of Sound Power Levels of Noise Sources using Sound Pressure - Precision Methods for Reverberation Test Rooms (a nationally adopted international standard)."

10) IEC 61672-1:2013 "Electroacoustics Sound Level Meters - Part 1: Specifications."

b) Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096. (877)606-7323.

1) SAE Recommended Practice J184 "Qualifying a Sound Data Acquisition System." November 1998.

2) SAE Recommended Practice J192 "Exterior Sound Level for Snowmobiles-"~~January~~, January 2015.

3) SAE/ANSI Recommended Practice J1161 "Operational Sound Level Measurement Procedure for Snowmobiles-"April 2004.

c) California Highway Patrol Sound Measurement Procedures HPH 83.1 (October 1, 1973, as amended November 9, 1975. Available at Illinois Pollution Control Board Clerk's Office, 100 W. Randolph Street, Suite 11-500, Chicago, IL 60601. (312)814-3620.

d) Code of Federal Regulations

1) 40 CFR 202.12(e) (2017).

2) 40 CFR 202.20(a) (2017).

3) 40 CFR 202.21(a) (2017).

4) 40 CFR 202.22 (2017).

5) 40 CFR 202.23 (2017).

6) 40 CFR 205.152(a) (2017).

7) 40 CFR 205.166 (2017).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 900.APPENDIX A Old Rule Numbers Referenced (Repealed)

(Source: Repealed at 42 Ill. Reg. _____, effective _____)

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